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EVALUATION OF USED CRANKCASE OILS USING COMPUTERIZED  
INFRARED SPECTROMETR. (U) JOINT OIL ANALYSIS PROGRAM  
PENSACOLA FL TECHNICAL SUPPORT CEN. B B MCCA ET AL.

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MICROCOPY RESOLUTION TEST CHART  
NATIONAL BUREAU OF STANDARDS-1963-A



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JOAP-TSC REPORT 84-01

EVALUATION OF USED CRANKCASE OILS  
USING COMPUTERIZED INFRARED SPECTROMETRY

APPENDICES

AD-A152 994

JOINT OIL ANALYSIS PROGRAM  
TECHNICAL SUPPORT CENTER  
PENSACOLA, FL

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19. KEY WORDS (Continue on reverse side if necessary and identify by block number) Infrared Spectroscopy    hydroxyl    fuel dilution transmittance    oxidation    total acid number absorbance    carboxylates    total solids integrated area    nitration    viscosity peak heights    sulfation    carbon loading		
20. ABSTRACT (Continue on reverse side if necessary and identify by block number) This is the final report of a study to determine whether computerized infrared spectroscopy is a feasible technique for oil condition monitoring. The study addresses the major factors that influence the performance of a lubricant in service and demonstrates that these factors may be monitored with infrared spectroscopy. The study identifies specific regions and peaks within the infrared spectra to be monitored in a routine oil condition monitoring program and proposes abnormal threshold for quantitative measures of these		

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20. (cont) Regions and peaks. Evaluation criteria for five Army combat and tactical vehicle engines and one Air Force administrative engine are developed. Further the study recommends a field test of the infrared methodology at a single Army installation. *This document only includes computer printout with tables and plots.* ←

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APPENDIX B  
CONTINENTAL LDS-465 ENGINE  
4TH SUPPLY AND TRANSPORT BATTALION  
4TH INFANTRY DIVISION, FT. CARSON, CO

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<i>A-1</i>	



\*These models were all developed early in the study and are based on a slightly different data collection methodology than that outlined in Table 1.



ENGINE LDS-465

17106 WEDNESDAY, MAY 30, 1984

ORS	CL2	NET11	NET12	NET13	NET14	NET15	FD1	FD2	FD13	FD4	ZN1	SD4	HRS	FE	VIS	TAN	TS	CUB	GC
1	38	321.5	612.7	845.9	7	845.9	10.30	2.70	676.8	8	0.96	1.56	425	94	130	6	88	16	0
2	38	103.5	536.5	851.1	22	254.02	11.65	0.86	711.36	2.0	-0.09	1.22	445	103	126	14	68	16	12
3	38	1669.5	707.8	1042.1	23	272.56	10.86	3.48	4321.3	3	-0.26	1.13	481	105	127	14	68	16	22
4	56	-1076.6	650.47	1042.1	23	313.88	2.48	2.15	8207.2	8	-0.30	0.00	44	122	128	100	68	16	26
5	10	106.3	159.47	355.1	7	89.81	0.41	1.34	596.2	2	-0.46	0.56	62	123	129	100	68	16	69
6	10	92.0	178.63	348.2	7	94.74	1.09	0.99	679.3	4	-0.35	0.47	62	124	130	100	68	16	10
7	10	326.0	193.9	455.2	7	103.18	0.62	0.62	6842.0	0	-0.25	0.86	62	125	131	100	68	16	13
8	12	5209.4	-831.6	-12.6	23	150.38	0.00	0.00	7771.0	0	0.11	1.47	62	126	132	100	68	16	14
9	12	783.4	-17.7	-47.6	35	-5.44	1.68	0.38	293.9	9	0.68	0.47	62	127	133	100	68	16	15
10	12	-1047.4	-16.5	-33.5	41	-6.89	1.61	0.38	383.6	9	-1.20	0.47	62	128	134	100	68	16	15
11	15	-1135.8	16.5	50.5	41	21.02	2.70	1.70	411.7	0	-1.35	0.47	62	129	135	100	68	16	15
12	15	-6045.4	-100.4	1218.5	38	21.02	0.00	0.00	1268.8	8	-1.71	2.81	62	130	136	100	68	16	15
13	15	7968.5	-1173.4	955.8	38	-176.11	0.00	0.00	1120.8	8	1.71	2.81	62	131	137	100	68	16	15
14	15	190.2	49.3	27.5	15	15.73	0.00	0.00	-7.5	8	0.08	0.05	62	132	138	100	68	16	15
15	15	4422.5	-49.3	-56.9	15	109.15	0.00	0.00	-324.4	0	-0.58	0.00	62	133	139	100	68	16	15
16	15	1747.4	-1105.5	-93.3	15	-56.9	0.00	0.00	-1560.5	0	-0.58	0.00	62	134	140	100	68	16	15
17	15	-1073.4	-1105.5	-93.3	15	-56.9	0.00	0.00	-1560.5	0	-0.58	0.00	62	135	141	100	68	16	15
18	15	-1073.4	-1105.5	-93.3	15	-56.9	0.00	0.00	-1560.5	0	-0.58	0.00	62	136	142	100	68	16	15
19	15	-1073.4	-1105.5	-93.3	15	-56.9	0.00	0.00	-1560.5	0	-0.58	0.00	62	137	143	100	68	16	15
20	15	-1073.4	-1105.5	-93.3	15	-56.9	0.00	0.00	-1560.5	0	-0.58	0.00	62	138	144	100	68	16	15
21	15	-1073.4	-1105.5	-93.3	15	-56.9	0.00	0.00	-1560.5	0	-0.58	0.00	62	139	145	100	68	16	15
22	15	-1073.4	-1105.5	-93.3	15	-56.9	0.00	0.00	-1560.5	0	-0.58	0.00	62	140	146	100	68	16	15
23	15	-1073.4	-1105.5	-93.3	15	-56.9	0.00	0.00	-1560.5	0	-0.58	0.00	62	141	147	100	68	16	15
24	15	-1073.4	-1105.5	-93.3	15	-56.9	0.00	0.00	-1560.5	0	-0.58	0.00	62	142	148	100	68	16	15
25	15	-1073.4	-1105.5	-93.3	15	-56.9	0.00	0.00	-1560.5	0	-0.58	0.00	62	143	149	100	68	16	15
26	15	-1073.4	-1105.5	-93.3	15	-56.9	0.00	0.00	-1560.5	0	-0.58	0.00	62	144	150	100	68	16	15
27	15	-1073.4	-1105.5	-93.3	15	-56.9	0.00	0.00	-1560.5	0	-0.58	0.00	62	145	151	100	68	16	15
28	15	-1073.4	-1105.5	-93.3	15	-56.9	0.00	0.00	-1560.5	0	-0.58	0.00	62	146	152	100	68	16	15
29	15	-1073.4	-1105.5	-93.3	15	-56.9	0.00	0.00	-1560.5	0	-0.58	0.00	62	147	153	100	68	16	15
30	15	-1073.4	-1105.5	-93.3	15	-56.9	0.00	0.00	-1560.5	0	-0.58	0.00	62	148	154	100	68	16	15
31	15	-1073.4	-1105.5	-93.3	15	-56.9	0.00	0.00	-1560.5	0	-0.58	0.00	62	149	155	100	68	16	15
32	15	-1073.4	-1105.5	-93.3	15	-56.9	0.00	0.00	-1560.5	0	-0.58	0.00	62	150	156	100	68	16	15
33	15	-1073.4	-1105.5	-93.3	15	-56.9	0.00	0.00	-1560.5	0	-0.58	0.00	62	151	157	100	68	16	15
34	15	-1073.4	-1105.5	-93.3	15	-56.9	0.00	0.00	-1560.5	0	-0.58	0.00	62	152	158	100	68	16	15
35	15	-1073.4	-1105.5	-93.3	15	-56.9	0.00	0.00	-1560.5	0	-0.58	0.00	62	153	159	100	68	16	15
36	15	-1073.4	-1105.5	-93.3	15	-56.9	0.00	0.00	-1560.5	0	-0.58	0.00	62	154	160	100	68	16	15
37	15	-1073.4	-1105.5	-93.3	15	-56.9	0.00	0.00	-1560.5	0	-0.58	0.00	62	155	161	100	68	16	15
38	15	-1073.4	-1105.5	-93.3	15	-56.9	0.00	0.00	-1560.5	0	-0.58	0.00	62	156	162	100	68	16	15
39	15	-1073.4	-1105.5	-93.3	15	-56.9	0.00	0.00	-1560.5	0	-0.58	0.00	62	157	163	100	68	16	15
40	15	-1073.4	-1105.5	-93.3	15	-56.9	0.00	0.00	-1560.5	0	-0.58	0.00	62	158	164	100	68	16	15
41	15	-1073.4	-1105.5	-93.3	15	-56.9	0.00	0.00	-1560.5	0	-0.58	0.00	62	159	165	100	68	16	15
42	15	-1073.4	-1105.5	-93.3	15	-56.9	0.00	0.00	-1560.5	0	-0.58	0.00	62	160	166	100	68	16	15
43	15	-1073.4	-1105.5	-93.3	15	-56.9	0.00	0.00	-1560.5	0	-0.58	0.00	62	161	167	100	68	16	15
44	15	-1073.4	-1105.5	-93.3	15	-56.9	0.00	0.00	-1560.5	0	-0.58	0.00	62	162	168	100	68	16	15
45	15	-1073.4	-1105.5	-93.3	15	-56.9	0.00	0.00	-1560.5	0	-0.58	0.00	62	163	169	100	68	16	15
46	15	-1073.4	-1105.5	-93.3	15	-56.9	0.00	0.00	-1560.5	0	-0.58	0.00	62	164	170	100	68	16	15
47	15	-1073.4	-1105.5	-93.3	15	-56.9	0.00	0.00	-1560.5	0	-0.58	0.00	62	165	171	100	68	16	15
48	15	-1073.4	-1105.5	-93.3	15	-56.9	0.00	0.00	-1560.5	0	-0.58	0.00	62	166	172	100	68	16	15
49	15	-1073.4	-1105.5	-93.3	15	-56.9	0.00	0.00	-1560.5	0	-0.58	0.00	62	167	173	100	68	16	15
50	15	-1073.4	-1105.5	-93.3	15	-56.9	0.00	0.00	-1560.5	0	-0.58	0.00	62	168	174	100	68	16	15
51	15	-1073.4	-1105.5	-93.3	15	-56.9	0.00	0.00	-1560.5	0	-0.58	0.00	62	169	175	100	68	16	15
52	15	-1073.4	-1105.5	-93.3	15	-56.9	0.00	0.00	-1560.5	0	-0.58	0.00	62	170	176	100	68	16	15
53	15	-1073.4	-1105.5	-93.3	15	-56.9	0.00	0.00	-1560.5	0	-0.58	0.00	62	171	177	100	68	16	15
54	15	-1073.4	-1105.5	-93.3	15	-56.9	0.00	0.00	-1560.5	0	-0.58	0.00	62	172	178	100	68	16	15
55	15	-1073.4	-1105.5	-93.3	15	-56.9	0.00	0.00	-1560.5	0	-0.58	0.00	62	173	179	100	68	16	15
56	15	-1073.4	-1105.5	-93.3	15	-56.9	0.00	0.00	-1560.5	0	-0.58	0.00	62	174	180	100	68	16	15



OBS	CLP	DET11	DET12	DET13	DET14	DET15	FD1	FD2	FD13	FD4	ZN1	SN4	MKS	VIS	TAN	TS	COB	GC
57	34	103.6	466.3	1832.06	2417.03	255.82	5.31	0.00	579.147	-0.87	182	96	2455	123	2149	34.0	6.1	
58	34	103.6	466.3	1832.06	2417.03	255.82	5.31	0.00	579.147	-0.87	182	96	2455	123	2149	34.0	6.1	
59	34	103.6	466.3	1832.06	2417.03	255.82	5.31	0.00	579.147	-0.87	182	96	2455	123	2149	34.0	6.1	
60	34	103.6	466.3	1832.06	2417.03	255.82	5.31	0.00	579.147	-0.87	182	96	2455	123	2149	34.0	6.1	
61	34	103.6	466.3	1832.06	2417.03	255.82	5.31	0.00	579.147	-0.87	182	96	2455	123	2149	34.0	6.1	
62	34	103.6	466.3	1832.06	2417.03	255.82	5.31	0.00	579.147	-0.87	182	96	2455	123	2149	34.0	6.1	
63	34	103.6	466.3	1832.06	2417.03	255.82	5.31	0.00	579.147	-0.87	182	96	2455	123	2149	34.0	6.1	
64	34	103.6	466.3	1832.06	2417.03	255.82	5.31	0.00	579.147	-0.87	182	96	2455	123	2149	34.0	6.1	
65	34	103.6	466.3	1832.06	2417.03	255.82	5.31	0.00	579.147	-0.87	182	96	2455	123	2149	34.0	6.1	
66	34	103.6	466.3	1832.06	2417.03	255.82	5.31	0.00	579.147	-0.87	182	96	2455	123	2149	34.0	6.1	
67	34	103.6	466.3	1832.06	2417.03	255.82	5.31	0.00	579.147	-0.87	182	96	2455	123	2149	34.0	6.1	
68	34	103.6	466.3	1832.06	2417.03	255.82	5.31	0.00	579.147	-0.87	182	96	2455	123	2149	34.0	6.1	
69	34	103.6	466.3	1832.06	2417.03	255.82	5.31	0.00	579.147	-0.87	182	96	2455	123	2149	34.0	6.1	
70	34	103.6	466.3	1832.06	2417.03	255.82	5.31	0.00	579.147	-0.87	182	96	2455	123	2149	34.0	6.1	
71	34	103.6	466.3	1832.06	2417.03	255.82	5.31	0.00	579.147	-0.87	182	96	2455	123	2149	34.0	6.1	
72	34	103.6	466.3	1832.06	2417.03	255.82	5.31	0.00	579.147	-0.87	182	96	2455	123	2149	34.0	6.1	
73	34	103.6	466.3	1832.06	2417.03	255.82	5.31	0.00	579.147	-0.87	182	96	2455	123	2149	34.0	6.1	
74	34	103.6	466.3	1832.06	2417.03	255.82	5.31	0.00	579.147	-0.87	182	96	2455	123	2149	34.0	6.1	
75	34	103.6	466.3	1832.06	2417.03	255.82	5.31	0.00	579.147	-0.87	182	96	2455	123	2149	34.0	6.1	
76	34	103.6	466.3	1832.06	2417.03	255.82	5.31	0.00	579.147	-0.87	182	96	2455	123	2149	34.0	6.1	
77	34	103.6	466.3	1832.06	2417.03	255.82	5.31	0.00	579.147	-0.87	182	96	2455	123	2149	34.0	6.1	
78	34	103.6	466.3	1832.06	2417.03	255.82	5.31	0.00	579.147	-0.87	182	96	2455	123	2149	34.0	6.1	
79	34	103.6	466.3	1832.06	2417.03	255.82	5.31	0.00	579.147	-0.87	182	96	2455	123	2149	34.0	6.1	
80	34	103.6	466.3	1832.06	2417.03	255.82	5.31	0.00	579.147	-0.87	182	96	2455	123	2149	34.0	6.1	
81	34	103.6	466.3	1832.06	2417.03	255.82	5.31	0.00	579.147	-0.87	182	96	2455	123	2149	34.0	6.1	
82	34	103.6	466.3	1832.06	2417.03	255.82	5.31	0.00	579.147	-0.87	182	96	2455	123	2149	34.0	6.1	
83	34	103.6	466.3	1832.06	2417.03	255.82	5.31	0.00	579.147	-0.87	182	96	2455	123	2149	34.0	6.1	
84	34	103.6	466.3	1832.06	2417.03	255.82	5.31	0.00	579.147	-0.87	182	96	2455	123	2149	34.0	6.1	
85	34	103.6	466.3	1832.06	2417.03	255.82	5.31	0.00	579.147	-0.87	182	96	2455	123	2149	34.0	6.1	
86	34	103.6	466.3	1832.06	2417.03	255.82	5.31	0.00	579.147	-0.87	182	96	2455	123	2149	34.0	6.1	
87	34	103.6	466.3	1832.06	2417.03	255.82	5.31	0.00	579.147	-0.87	182	96	2455	123	2149	34.0	6.1	
88	34	103.6	466.3	1832.06	2417.03	255.82	5.31	0.00	579.147	-0.87	182	96	2455	123	2149	34.0	6.1	
89	34	103.6	466.3	1832.06	2417.03	255.82	5.31	0.00	579.147	-0.87	182	96	2455	123	2149	34.0	6.1	
90	34	103.6	466.3	1832.06	2417.03	255.82	5.31	0.00	579.147	-0.87	182	96	2455	123	2149	34.0	6.1	
91	34	103.6	466.3	1832.06	2417.03	255.82	5.31	0.00	579.147	-0.87	182	96	2455	123	2149	34.0	6.1	
92	34	103.6	466.3	1832.06	2417.03	255.82	5.31	0.00	579.147	-0.87	182	96	2455	123	2149	34.0	6.1	
93	34	103.6	466.3	1832.06	2417.03	255.82	5.31	0.00	579.147	-0.87	182	96	2455	123	2149	34.0	6.1	
94	34	103.6	466.3	1832.06	2417.03	255.82	5.31	0.00	579.147	-0.87	182	96	2455	123	2149	34.0	6.1	
95	34	103.6	466.3	1832.06	2417.03	255.82	5.31	0.00	579.147	-0.87	182	96	2455	123	2149	34.0	6.1	
96	34	103.6	466.3	1832.06	2417.03	255.82	5.31	0.00	579.147	-0.87	182	96	2455	123	2149	34.0	6.1	
97	34	103.6	466.3	1832.06	2417.03	255.82	5.31	0.00	579.147	-0.87	182	96	2455	123	2149	34.0	6.1	
98	34	103.6	466.3	1832.06	2417.03	255.82	5.31	0.00	579.147	-0.87	182	96	2455	123	2149	34.0	6.1	
99	34	103.6	466.3	1832.06	2417.03	255.82	5.31	0.00	579.147	-0.87	182	96	2455	123	2149	34.0	6.1	
100	34	103.6	466.3	1832.06	2417.03	255.82	5.31	0.00	579.147	-0.87	182	96	2455	123	2149	34.0	6.1	
101	34	103.6	466.3	1832.06	2417.03	255.82	5.31	0.00	579.147	-0.87	182	96	2455	123	2149	34.0	6.1	
102	34	103.6	466.3	1832.06	2417.03	255.82	5.31	0.00	579.147	-0.87	182	96	2455	123	2149	34.0	6.1	
103	34	103.6	466.3	1832.06	2417.03	255.82	5.31	0.00	579.147	-0.87	182	96	2455	123	2149	34.0	6.1	
104	34	103.6	466.3	1832.06	2417.03	255.82	5.31	0.00	579.147	-0.87	182	96	2455	123	2149	34.0	6.1	
105	34	103.6	466.3	1832.06	2417.03	255.82	5.31	0.00	579.147	-0.87	182	96	2455	123	2149	34.0	6.1	
106	34	103.6	466.3	1832.06	2417.03	255.82	5.31	0.00	579.147	-0.87	182	96	2455	123	2149	34.0	6.1	
107	34	103.6	466.3	1832.06	2417.03	255.82	5.31	0.00	579.147	-0.87	182	96	2455	123	2149	34.0	6.1	
108	34	103.6	466.3	1832.06	2417.03	255.82	5.31	0.00	579.147	-0.87	182	96	2455	123	2149	34.0	6.1	
109	34	103.6	466.3	1832.06	2417.03	255.82	5.31	0.00	579.147	-0.87	182	96	2455	123	2149	34.0	6.1	
110	34	103.6	466.3	1832.06	2417.03	255.82	5.31	0.00	579.147	-0.87	182	96	2455	123	2149	34.0	6.1	
111	34	103.6	466.3	1832.06	2417.03	255.82	5.31	0.00	579.147	-0.87	182	96	2455	123	2149	34.0	6.1	
112	34	103.6	466.3	1832.06	2417.03	255.82	5.31	0.00	579.147	-0.87	182	96	2455	123	2149	34.0	6.1	



COBS	CL2	DET11	DET12	DET13	DET14	DET15	FD1	FD2	FD13	FI4	ZN1	S04	HRS	FE	VIS	TAN	TS	COR	GC
1113	72.09	2171.0	1119.68	1051.07	3180.35	545.22	2.19	70.46	1479.60	-0.10	0.23	0.13	61	73	141	28	12000	0.00	10
1114	72.01	2521.0	957.04	1051.74	2904.10	522.33	6.57	0.00	1317.85	-0.10	0.30	0.13	62	74	130	22000	0.00	10	
1115	72.01	2626.0	1010.53	1095.27	3032.26	512.89	7.29	0.00	1351.45	-0.07	0.31	0.13	62	74	130	22000	0.00	10	
1116	72.01	2813.0	1221.91	1167.28	2775.81	482.05	15.85	0.00	1589.46	-0.09	0.33	0.13	63	75	130	22000	0.00	10	
1117	72.01	2935.0	1221.91	1167.28	2775.81	482.05	15.85	0.00	1589.46	-0.09	0.33	0.13	63	75	130	22000	0.00	10	
1118	72.01	3133.0	1221.91	1167.28	2775.81	482.05	15.85	0.00	1589.46	-0.09	0.33	0.13	63	75	130	22000	0.00	10	
1119	72.01	2644.0	1404.82	1760.43	4134.69	283.95	16.74	0.00	1504.81	-0.11	0.35	0.13	64	76	130	22000	0.00	10	
1120	72.01	2644.0	1336.83	352.39	1264.77	201.95	14.58	0.00	584.89	-0.11	0.35	0.13	64	76	130	22000	0.00	10	
1121	72.01	2644.0	373.62	608.25	1264.77	201.95	8.89	0.00	553.23	-0.11	0.35	0.13	64	76	130	22000	0.00	10	
1122	72.01	2644.0	373.62	608.25	1264.77	201.95	8.89	0.00	553.23	-0.11	0.35	0.13	64	76	130	22000	0.00	10	
1123	72.01	2644.0	415.00	701.64	2494.21	236.79	0.00	0.00	6203.90	-0.11	0.35	0.13	64	76	130	22000	0.00	10	
1124	72.01	2644.0	438.33	826.78	2659.86	265.06	0.00	0.00	6203.90	-0.11	0.35	0.13	64	76	130	22000	0.00	10	
1125	72.01	2644.0	438.33	826.78	2659.86	265.06	0.00	0.00	6203.90	-0.11	0.35	0.13	64	76	130	22000	0.00	10	
1126	72.01	2644.0	564.88	950.12	2744.95	381.02	0.00	0.00	6203.90	-0.11	0.35	0.13	64	76	130	22000	0.00	10	
1127	72.01	2644.0	564.88	950.12	2744.95	381.02	0.00	0.00	6203.90	-0.11	0.35	0.13	64	76	130	22000	0.00	10	
1128	72.01	2644.0	591.82	1068.38	2854.57	293.40	0.00	0.00	5166.36	-0.11	0.35	0.13	64	76	130	22000	0.00	10	
1129	72.01	2644.0	591.82	1068.38	2854.57	293.40	0.00	0.00	5166.36	-0.11	0.35	0.13	64	76	130	22000	0.00	10	
1130	72.01	2644.0	780.16	1225.51	2922.06	234.70	1.63	0.19	8351.95	-0.11	0.35	0.13	64	76	130	22000	0.00	10	
1131	72.01	2644.0	780.16	1225.51	2922.06	234.70	1.63	0.19	8351.95	-0.11	0.35	0.13	64	76	130	22000	0.00	10	
1132	72.01	2644.0	852.9	1750.47	2922.06	234.70	0.00	0.19	8351.95	-0.11	0.35	0.13	64	76	130	22000	0.00	10	
1133	72.01	2644.0	852.9	1750.47	2922.06	234.70	0.00	0.19	8351.95	-0.11	0.35	0.13	64	76	130	22000	0.00	10	
1134	72.01	2644.0	852.9	1750.47	2922.06	234.70	0.00	0.19	8351.95	-0.11	0.35	0.13	64	76	130	22000	0.00	10	
1135	72.01	2644.0	852.9	1750.47	2922.06	234.70	0.00	0.19	8351.95	-0.11	0.35	0.13	64	76	130	22000	0.00	10	
1136	72.01	2644.0	852.9	1750.47	2922.06	234.70	0.00	0.19	8351.95	-0.11	0.35	0.13	64	76	130	22000	0.00	10	
1137	72.01	2644.0	852.9	1750.47	2922.06	234.70	0.00	0.19	8351.95	-0.11	0.35	0.13	64	76	130	22000	0.00	10	
1138	72.01	2644.0	852.9	1750.47	2922.06	234.70	0.00	0.19	8351.95	-0.11	0.35	0.13	64	76	130	22000	0.00	10	
1139	72.01	2644.0	852.9	1750.47	2922.06	234.70	0.00	0.19	8351.95	-0.11	0.35	0.13	64	76	130	22000	0.00	10	
1140	72.01	2644.0	852.9	1750.47	2922.06	234.70	0.00	0.19	8351.95	-0.11	0.35	0.13	64	76	130	22000	0.00	10	
1141	72.01	2644.0	852.9	1750.47	2922.06	234.70	0.00	0.19	8351.95	-0.11	0.35	0.13	64	76	130	22000	0.00	10	
1142	72.01	2644.0	852.9	1750.47	2922.06	234.70	0.00	0.19	8351.95	-0.11	0.35	0.13	64	76	130	22000	0.00	10	
1143	72.01	2644.0	852.9	1750.47	2922.06	234.70	0.00	0.19	8351.95	-0.11	0.35	0.13	64	76	130	22000	0.00	10	
1144	72.01	2644.0	852.9	1750.47	2922.06	234.70	0.00	0.19	8351.95	-0.11	0.35	0.13	64	76	130	22000	0.00	10	
1145	72.01	2644.0	852.9	1750.47	2922.06	234.70	0.00	0.19	8351.95	-0.11	0.35	0.13	64	76	130	22000	0.00	10	
1146	72.01	2644.0	852.9	1750.47	2922.06	234.70	0.00	0.19	8351.95	-0.11	0.35	0.13	64	76	130	22000	0.00	10	
1147	72.01	2644.0	852.9	1750.47	2922.06	234.70	0.00	0.19	8351.95	-0.11	0.35	0.13	64	76	130	22000	0.00	10	
1148	72.01	2644.0	852.9	1750.47	2922.06	234.70	0.00	0.19	8351.95	-0.11	0.35	0.13	64	76	130	22000	0.00	10	
1149	72.01	2644.0	852.9	1750.47	2922.06	234.70	0.00	0.19	8351.95	-0.11	0.35	0.13	64	76	130	22000	0.00	10	
1150	72.01	2644.0	852.9	1750.47	2922.06	234.70	0.00	0.19	8351.95	-0.11	0.35	0.13	64	76	130	22000	0.00	10	
1151	72.01	2644.0	852.9	1750.47	2922.06	234.70	0.00	0.19	8351.95	-0.11	0.35	0.13	64	76	130	22000	0.00	10	
1152	72.01	2644.0	852.9	1750.47	2922.06	234.70	0.00	0.19	8351.95	-0.11	0.35	0.13	64	76	130	22000	0.00	10	
1153	72.01	2644.0	852.9	1750.47	2922.06	234.70	0.00	0.19	8351.95	-0.11	0.35	0.13	64	76	130	22000	0.00	10	
1154	72.01	2644.0	852.9	1750.47	2922.06	234.70	0.00	0.19	8351.95	-0.11	0.35	0.13	64	76	130	22000	0.00	10	
1155	72.01	2644.0	852.9	1750.47	2922.06	234.70	0.00	0.19	8351.95	-0.11	0.35	0.13	64	76	130	22000	0.00	10	
1156	72.01	2644.0	852.9	1750.47	2922.06	234.70	0.00	0.19	8351.95	-0.11	0.35	0.13	64	76	130	22000	0.00	10	
1157	72.01	2644.0	852.9	1750.47	2922.06	234.70	0.00	0.19	8351.95	-0.11	0.35	0.13	64	76	130	22000	0.00	10	
1158	72.01	2644.0	852.9	1750.47	2922.06	234.70	0.00	0.19	8351.95	-0.11	0.35	0.13	64	76	130	22000	0.00	10	
1159	72.01	2644.0	852.9	1750.47	2922.06	234.70	0.00	0.19	8351.95	-0.11	0.35	0.13	64	76	130	22000	0.00	10	
1160	72.01	2644.0	852.9	1750.47	2922.06	234.70	0.00	0.19	8351.95	-0.11	0.35	0.13	64	76	130	22000	0.00	10	
1161	72.01	2644.0	852.9	1750.47	2922.06	234.70	0.00	0.19	8351.95	-0.11	0.35	0.13	64	76	130	22000	0.00	10	
1162	72.01	2644.0	852.9	1750.47	2922.06	234.70	0.00	0.19	8351.95	-0.11	0.35	0.13	64	76	130	22000	0.00	10	
1163	72.01	2644.0	852.9	1750.47	2922.06	234.70	0.00	0.19	8351.95	-0.11	0.35	0.13	64	76	130	22000	0.00	10	
1164	72.01	2644.0	852.9	1750.47	2922.06	234.70	0.00	0.19	8351.95	-0.11	0.35	0.13	64	76	130	22000	0.00	10	
1165	72.01	2644.0	852.9	1750.47	2922.06	234.70	0.00	0.19	8351.95	-0.11	0.35	0.13	64	76	130	22000	0.00	10	
1166	72.01	2644.0	852.9	1750.47	2922.06	234.70	0.00	0.19	8351.95	-0.11	0.35	0.13	64	76	130	22000	0.00	10	
1167	72.01	2644.0	852.9	1750.47	2922.06	234.70	0.00	0.19	8351.95	-0.11	0.35	0.13	64	76	130	22000	0.00	10	
1168	72.01	2644.0	852.9	1750.47	2922.06	234.70	0.00	0.19	8351.95	-0.11	0.35	0.13	64	76	130	22000	0.00	10	
1169	72.01	2644.0	852.9	1750.47	2922.06	234.70	0.00	0.19	8351.95	-0.11	0.35	0.13	64	76	130	22000	0.00	10	
1170	72.01	2644.0	852.9	1750.47	2922.06	234.70	0.00	0.19	8351.95	-0.11	0.35	0.13	64	76	130	22000	0.00	10	
1171	72.01	2644.0	852.9	1750.47	2922.06	234.70	0.00	0.19	8351.95	-0.11	0.35	0.13	64	76	130	22000	0.00	10	
1172	72.01	2644.0	852.9	1750.47	2922.06	234.70	0.00	0.19	8351.95	-0.11	0.35	0.13	64	76	130	22000	0.00	10	
1173	72.01	2644.0	852.9	1750.47	2922.06	234.70	0.00	0.19	8351.95	-0.11	0.35	0.13	64	76	130	22000	0.00	10	
1174	72.01	2644.0	852.9	1750.47	2922.06	234.70	0.00	0.19	8351.95	-0.11	0.35	0.13	64	76	130	22000	0.00	10	
1175	72.01	2644.0	852.9	1750.47	2922.06	234.70	0.00	0.19	8351.95	-0.11	0.35	0.13	64	76	130	22000	0.00	10	
1176	72.01	2644.0	852.9	1750.47	2922.06	234.70	0.00	0.19	8351.95	-0.11	0.35	0.13	64	76	130	22000	0.00	10	
1177	72.01	2644.0	852.9	1750.47	2922.06	234.70	0.00	0.19	8351.95	-0.11	0.35	0.13	64	76	130	22000	0.00	10	
1178	72.01	2644.0	852.9	1750.47	2922.06	234.70	0.00	0.19	8351.95	-0.11	0.35	0.13	64	76	130	22000	0.00	10	
1179	72.01	2644.0	852.9	1750.47	2922.06														



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ENGINE IDS-465

Obs	C12	DET11	DET12	DET13	DET14	DET15	FD1	FD2	FD13	FD4	ZP1	S04	MRS	FE	VIS	TAN	TS	C08	GC
169	5.86	124.6	215.20	259.75	-220.35	58.67	3.29	3.66	121.44	1.09	-1.62	1.05	24	91	108	49	2.20	5	13
170	7.29	-216.3	262.42	317.01	-215.49	104.74	4.83	5.83	229.24	1.12	-2.02	0.30	37	39	160	14	1.20	18	23
171	8.61	-219.1	266.46	361.80	-237.90	182.33	1.93	3.37	-229.24	1.05	-3.01	0.84	44	50	172	29	1.00	22	28
172	0.67	1468.1	165.50	196.40	-387.61	73.33	1.33	0.09	221.07	1.05	-0.14	0.15	4	11	150	09	1.20	11	20
173	0.64	191.6	153.16	202.18	-419.58	77.77	1.87	0.46	280.88	1.49	-0.48	0.22	6	15	133	84	1.40	8	26
174	0.76	1087.2	149.10	189.09	-587.57	132.08	7.92	1.52	1206.98	1.12	-1.25	0.36	19	21	164	06	1.20	30	11
175	7.08	304.6	286.30	316.58	-597.44	127.48	4.46	3.56	1309.55	0.41	-2.40	0.07	14	18	107	11	1.40	11	18
176	2.06	124.8	53.40	106.75	-390.22	27.9	3.44	1.08	1599.77	0.42	-2.40	0.14	13	26	104	86	1.40	18	35
177	2.20	-152.9	-32.42	154.57	-319.48	14.33	4.16	1.72	804.29	0.44	-2.40	0.00	77	3	133	59	1.40	20	1
178	2.03	-386.8	-35.59	251.20	-235.48	13.88	4.93	1.17	846.45	0.38	-4.00	0.00	3	5	133	78	1.40	11	5
179	14.04	-355.3	-35.59	336.18	-235.48	13.88	5.06	1.17	850.46	0.38	-4.00	0.00	3	5	133	78	1.40	11	5
180	14.04	-118.3	29.12	14.57	-17.77	14.76	0.00	0.18	4.66	0.39	-0.83	0.00	3	5	133	78	1.40	11	5
181	205.53	-2634.4	457.57	653.54	1907.33	184.33	0.00	3.69	299.63	0.77	1.22	1.73	251	50	133	59	1.40	20	1
182	189.44	-1790.3	527.45	587.38	1836.18	214.40	0.00	0.32	228.41	0.73	1.22	1.73	281	50	133	59	1.40	20	1
183	173.11	5401.0	-474.01	364.91	2308.96	-233.03	0.00	0.00	332.41	-1.1	1.23	1.73	289	50	133	59	1.40	20	1
184	104.50	1239.1	-21.75	44.14	4.67	17.03	2.01	2.55	126.26	0.24	-0.08	0.16	25	10	133	59	1.40	20	1
185	11.00	-17.2	49.59	218.41	429.40	58.81	6.00	0.35	183.68	0.13	-0.09	0.23	31	13	133	59	1.40	20	1
186	27.79	424.3	171.13	418.08	829.41	118.58	0.00	0.48	312.17	-0.13	-0.01	0.30	41	10	133	59	1.40	20	1
187	37.62	-808.3	254.65	615.01	1127.58	156.68	0.00	0.00	456.51	-0.42	0.01	0.25	55	10	133	59	1.40	20	1
188	54.73	2869.3	289.41	615.01	1048.58	121.62	0.00	0.00	713.29	-0.42	0.01	0.25	55	10	133	59	1.40	20	1
189	71.94	5317.5	400.89	357.45	1348.90	-429.76	0.00	0.00	878.49	-1.01	-0.05	1.23	72	10	133	59	1.40	20	1
190	81.49	3263.0	-337.36	-357.45	1064.90	-429.76	0.00	0.00	-144.19	-0.49	-2.05	1.23	102	10	133	59	1.40	20	1
191	115.46	174.52	...	...	...	...	...	...	...	...	...	...	129	10	133	59	1.40	20	1
192	154.09	...	...	...	...	...	...	...	...	...	...	...	139	10	133	59	1.40	20	1
193	173.14	...	...	...	...	...	...	...	...	...	...	...	139	10	133	59	1.40	20	1
194	173.14	...	...	...	...	...	...	...	...	...	...	...	139	10	133	59	1.40	20	1
195	16.04	...	...	...	...	...	...	...	...	...	...	...	139	10	133	59	1.40	20	1
196	31.01	...	...	...	...	...	...	...	...	...	...	...	139	10	133	59	1.40	20	1
197	31.01	...	...	...	...	...	...	...	...	...	...	...	139	10	133	59	1.40	20	1
198	31.01	...	...	...	...	...	...	...	...	...	...	...	139	10	133	59	1.40	20	1
199	31.01	...	...	...	...	...	...	...	...	...	...	...	139	10	133	59	1.40	20	1
200	31.01	...	...	...	...	...	...	...	...	...	...	...	139	10	133	59	1.40	20	1
201	31.01	...	...	...	...	...	...	...	...	...	...	...	139	10	133	59	1.40	20	1
202	31.01	...	...	...	...	...	...	...	...	...	...	...	139	10	133	59	1.40	20	1
203	31.01	...	...	...	...	...	...	...	...	...	...	...	139	10	133	59	1.40	20	1
204	31.01	...	...	...	...	...	...	...	...	...	...	...	139	10	133	59	1.40	20	1
205	31.01	...	...	...	...	...	...	...	...	...	...	...	139	10	133	59	1.40	20	1
206	31.01	...	...	...	...	...	...	...	...	...	...	...	139	10	133	59	1.40	20	1
207	31.01	...	...	...	...	...	...	...	...	...	...	...	139	10	133	59	1.40	20	1
208	31.01	...	...	...	...	...	...	...	...	...	...	...	139	10	133	59	1.40	20	1
209	31.01	...	...	...	...	...	...	...	...	...	...	...	139	10	133	59	1.40	20	1



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VARIABLE	N	MEAN	STD DEV	SUM	MINIMUM	MAXIMUM
CL2	209	55.26540670	50.69860042	11550.4700000	-0.08000000	205.53000000
DET11	184	1063.57410811	1998.21221070	196761.2100000	-3717.52000000	7968.50000000
DET12	184	354.72271739	507.11333965	65268.98000000	-1730.42000000	1546.44000000
DET13	184	693.16233696	639.37308407	127541.87000000	-1600.48000000	3255.79000000
DET14	184	1950.20695652	1452.54291842	358838.08000000	-390.58000000	7753.69000000
DET15	184	184.38211957	268.02074205	33926.3100000	-857.48000000	1224.54000000
FD1	184	3.80326087	4.64000591	699.80000000	0	17.50000000
FD2	184	2.63896739	8.89488958	485.5700000	0	75.78000000
FD13	184	628.43923913	828.70288399	115632.8200000	-4154.74000000	2361.89000000
FD4	184	-0.47527174	0.71034197	-87.4500000	-1.71000000	1.16000000
ZN1	184	-0.26597826	1.73345327	-48.9400000	-9.39000000	3.27000000
S04	184	0.99353261	0.77151261	182.8100000	-0.31000000	3.40000000
HRS	197	130.30964467	134.77343255	25671.0000000	0	565.00000000
FE	209	72.20095694	44.36667364	15090.0000000	5.00000000	210.00000000
V15	201	160.26865672	58.93095505	32214.0000000	41.00000000	368.00000000
TAN	209	2.84971292	0.80147695	595.5900000	1.51000000	7.60000000
TS	209	8.63014354	6.90893377	1803.7000000	0.40000000	36.80000000
CUR	137	11.03430657	4.91862364	1511.7000000	3.70000000	22.10000000
GC	96	11.10416667	6.60219926	1066.0000000	0	35.00000000







## CORRELATION COEFFICIENTS / NUMBER OF OBSERVATIONS

CL2	CL2	TS	S04	DET11	DET14	HRS	VIS	FE	TAN	FD4	DET13	FD1	FD2	ZN1
-1.00000	-0.80203	0.63988	0.55220	0.55220	0.52807	0.50182	0.47226	0.45665	0.33272	-0.18650	0.16931	-0.11827	0.06624	0.06309
-0.05435	-0.05073	0.02843	0.00776	0.00507	0.00507	0.00507	0.00507	0.00507	0.00507	0.00507	0.00507	0.00507	0.00507	0.00507
DET15	DET12	DET13	DET14	DET15	DET16	DET17	DET18	DET19	DET20	DET21	DET22	DET23	DET24	DET25
1.00000	0.56332	0.55220	0.51302	0.48751	0.46200	0.43649	0.41098	0.38547	0.35996	0.33445	0.30894	0.28343	0.25792	0.23241
-0.07295	0.07214	-0.02816	0.02235	0.01164	0.00093	0.00022	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
DET12	DET13	DET14	DET15	DET16	DET17	DET18	DET19	DET20	DET21	DET22	DET23	DET24	DET25	DET26
1.00000	0.97243	0.87648	0.65230	0.62905	0.60580	0.58255	0.55930	0.53605	0.51280	0.48955	0.46630	0.44305	0.41980	0.39655
0.17724	-0.17017	0.09207	0.09167	-0.05073	0.05073	0.05073	0.05073	0.05073	0.05073	0.05073	0.05073	0.05073	0.05073	0.05073
DET13	DET14	DET15	DET16	DET17	DET18	DET19	DET20	DET21	DET22	DET23	DET24	DET25	DET26	DET27
1.00000	0.91546	0.87648	0.83783	0.66221	0.66221	0.66221	0.66221	0.66221	0.66221	0.66221	0.66221	0.66221	0.66221	0.66221
0.20216	0.20216	0.16931	0.11240	-0.06664	0.06664	0.06664	0.06664	0.06664	0.06664	0.06664	0.06664	0.06664	0.06664	0.06664
DET14	DET15	DET16	DET17	DET18	DET19	DET20	DET21	DET22	DET23	DET24	DET25	DET26	DET27	DET28
1.00000	0.83783	0.65479	0.62905	0.61770	0.61770	0.61770	0.61770	0.61770	0.61770	0.61770	0.61770	0.61770	0.61770	0.61770
0.44037	0.26598	0.16919	0.12056	0.09998	0.09998	0.09998	0.09998	0.09998	0.09998	0.09998	0.09998	0.09998	0.09998	0.09998
DET15	DET16	DET17	DET18	DET19	DET20	DET21	DET22	DET23	DET24	DET25	DET26	DET27	DET28	DET29
1.00000	0.97243	0.91546	0.87648	0.83783	0.79928	0.76073	0.72218	0.68363	0.64508	0.60653	0.56798	0.52943	0.49088	0.45233
0.17724	-0.17017	0.09207	0.09167	-0.05073	0.05073	0.05073	0.05073	0.05073	0.05073	0.05073	0.05073	0.05073	0.05073	0.05073
DET16	DET17	DET18	DET19	DET20	DET21	DET22	DET23	DET24	DET25	DET26	DET27	DET28	DET29	DET30
1.00000	0.91546	0.87648	0.83783	0.79928	0.76073	0.72218	0.68363	0.64508	0.60653	0.56798	0.52943	0.49088	0.45233	0.41378
0.20216	0.20216	0.16931	0.11240	-0.06664	0.06664	0.06664	0.06664	0.06664	0.06664	0.06664	0.06664	0.06664	0.06664	0.06664
DET17	DET18	DET19	DET20	DET21	DET22	DET23	DET24	DET25	DET26	DET27	DET28	DET29	DET30	DET31
1.00000	0.83783	0.65479	0.62905	0.61770	0.61770	0.61770	0.61770	0.61770	0.61770	0.61770	0.61770	0.61770	0.61770	0.61770
0.44037	0.26598	0.16919	0.12056	0.09998	0.09998	0.09998	0.09998	0.09998	0.09998	0.09998	0.09998	0.09998	0.09998	0.09998
DET18	DET19	DET20	DET21	DET22	DET23	DET24	DET25	DET26	DET27	DET28	DET29	DET30	DET31	DET32







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## CORRELATION COEFFICIENTS / NUMBER OF OBSERVATIONS

S04

S04	1.00000	0.63988	0.54232	0.51302	0.47102	0.46355	0.42379	0.40690	0.37896	0.37699	0.35478	0.32650	0.31707
	184	184	184	184	184	184	184	174	184	184	184	122	184

GC

GC	0.23143	0.18503	0.09309	0.07343									
	92	176	184	184									

HRS

HRS	1.00000	0.50182	0.45391	0.45172	0.42027	0.40690	0.39916	0.33074	0.28299	0.24686	0.24439	0.19903	0.15646
	197	197	197	197	125	174	94	174	197	174	174	189	174

DET11

DET11	0.13976	0.08968	0.05713	0.01016									
	175	174	174	174									

FE

FE	1.00000	0.61702	0.56538	0.46518	0.45391	0.45062	0.42379	0.35656	0.30942	0.25786	0.25087	0.25013	0.24846
	209	184	209	184	197	209	184	137	184	184	184	201	185

GC

GC	0.18927	0.16337	0.16244	0.09969									
	96	184	184	184									

VIS

VIS	1.00000	0.78044	0.47226	0.39863	0.28314	0.26094	0.25015	0.23548	0.22879	0.21836	0.19903	0.18203	0.17017
	201	93	201	201	176	129	201	176	176	177	189	176	176

DET14

DET14	0.16919	0.16146	0.12612	0.06664									
	176	176	201	176									

TAN

TAN	1.00000	0.57076	0.45062	0.44385	0.43032	0.42203	0.40997	0.35478	0.33272	0.31949	0.28299	0.24263	0.17250
	209	184	209	184	137	184	184	184	209	184	197	185	184

FD2

FD2	0.14990	0.12612	0.08502	0.04350									
	184	201	184	96									

TS

TS	1.00000	0.80261	0.56538	0.54420	0.45112	0.43717	0.40818	0.39863	0.26216	0.16225	0.10983	0.09207	0.08729
	209	209	209	184	197	209	185	201	184	137	184	184	184



## CORRELATION COEFFICIENTS / NUMBER OF OBSERVATIONS

TS

GC 102 0.06892 0.04106 0.02039 0.01141 0.01141  
96 184 184 184 184

COB

GC 137 1.00000 0.63048 0.58538 0.54702 0.53493 0.48517 0.44037 0.43032 0.42027 0.35821 0.35656 0.32650 0.32650 0.26098 0.16223  
122 57 122 122 122 122 122 137 125 122 137 137 122 122 129 137

GC

GC 122 -0.09381 0.08744 0.07858 0.01164 0.00507 0.00507 0.00507 0.00507 0.00507 0.00507 0.00507 0.00507 0.00507 0.00507 0.00507 0.00507  
122 122 122 122 122 122 122 122 122 122 122 122 122 122 122 122

GC

GC 96 1.00000 -0.78084 0.63938 0.39916 0.39916 -0.33467 0.33467 0.23143 0.23143 0.20529 0.18927 0.18927 0.17724 0.14134 0.12056  
96 96 57 94 94 92 92 92 92 92 92 96 92 92 92 92

TS

TS 96 0.06892 0.02225 -0.02816 0.01443 0.01443 -0.00776 -0.00776 -0.00776 -0.00776 -0.00776 -0.00776 -0.00776 -0.00776 -0.00776 -0.00776  
96 96 92 92 92 92 92 92 92 92 92 92 92 92 92 92



STATISTICS ANALYSIS SYSTEM  
 WARNING: A OBSERVATIONS OBTAINED DUE TO MISSING VALUES.

STEP 1 VARIABLE D11 ENTERED R SQUARE = 0.51831823 C(P) = 34.42050653

OF	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
1	175591.71563580	175591.71563580	122.67	0.0001
114	154258.9958145	154258.9958145		
TOTAL	329850.71145034			

INTERCEPT  
 146.4080264  
 -2380.0002646

THE ABOVE MODEL IS THE BEST 1 VARIABLE MODEL FOUND.

STEP 2 VARIABLE D11 ENTERED F SQUARE = 0.56494380 C(P) = 22.24731459

OF	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
2	187923.65696459	93961.82848253	73.37	0.0001
114	139327.05855225	1232.98281905		
TOTAL	327250.71551684			

INTERCEPT  
 142.20845689  
 6.65085005  
 -2373.7225590

THE ABOVE MODEL IS THE BEST 2 VARIABLE MODEL FOUND.

STEP 3 VARIABLE D11 ENTERED F SQUARE = 0.60236061 C(P) = 12.87344506

OF	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
3	192006.4162122	64002.13887374	56.55	0.0001
112	127344.29889602	1137.00266871		
TOTAL	320250.71551824			

INTERCEPT  
 136.63541023  
 0.87565766  
 -2912.9535404  
 27095.95815836

THE ABOVE MODEL IS THE BEST 3 VARIABLE MODEL FOUND.

STEP 4 VARIABLE D11 ENTERED F SQUARE = 0.62074217 C(P) = 9.28586285

OF	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
4	198793.12514360	49698.28128500	45.42	0.0001
111	121537.59037364	1094.21752589		
TOTAL	320250.71551724			

INTERCEPT  
 135.97211342  
 -0.85953119  
 1.7223070  
 -2552.11821803  
 23165.4371042

F	PROB>F
5.38	0.0222
16.32	0.0001
98.60	0.0001
7.67	0.0066



MAXIMUM 1-SQUARE IMPROVEMENT FOR DEPENDENT VARIABLE VIS

F SQUARE = 0.64234656 C(P) = 2.71861465

DE	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
INTERCEPT	208711.94521561	51427.9830400	49.84	0.0001
OPT12	114538.77026763	1031.88381349		
OPT13	320250.71551724			

DE	STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	0.05646794	14745.07153745	14.29	0.0003
OPT12	0.04188221	24772.99988803	24.01	0.0001
OPT13	240.59734552	131213.31436203	127.12	0.0001
OPT14	7651.4411639	3966.38186443	3.84	0.0524

THE ABOVE MODEL IS THE BEST 4 VARIABLE MODEL FOUND.

STEP 5 VARIABLE OPT14 ENTERED F SQUARE = 0.65089384 C(P) = 2.12043306

DE	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
INTERCEPT	209449.21818133	41689.84363627	41.02	0.0001
OPT12	111801.49723591	1016.37724851		
OPT13	320250.71551724			

DE	STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	0.05606578	15131.96774537	14.89	0.0002
OPT12	0.04188221	24772.99988803	24.01	0.0001
OPT13	240.59734552	131213.31436203	127.12	0.0001
OPT14	7651.4411639	3966.38186443	3.84	0.0524

THE ABOVE MODEL IS THE BEST 5 VARIABLE MODEL FOUND.

STEP 6 VARIABLE OPT14 ENTERED F SQUARE = 0.65725778 C(P) = 2.18593849

DE	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
INTERCEPT	210487.27421588	35081.21236998	34.84	0.0001
OPT12	109763.44129736	1007.00404860		
OPT13	320250.71551724			

DE	STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	0.06087609	17148.26418404	17.03	0.0001
OPT12	0.04188221	24772.99988803	24.01	0.0001
OPT13	240.59734552	131213.31436203	127.12	0.0001
OPT14	7651.4411639	3966.38186443	3.84	0.0524

THE ABOVE MODEL IS THE BEST 6 VARIABLE MODEL FOUND.

STEP 7 VARIABLE OPT13 ENTERED F SQUARE = 0.66297819 C(P) = 2.44736297

DE	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
INTERCEPT	212319.23891274	39331.31984468	30.35	0.0001
OPT12	107931.47660450	999.36552412		
OPT13	320250.71551724			

DE	STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	0.06016544	16386.52532145	16.40	0.0001
OPT12	0.04188221	24772.99988803	24.01	0.0001
OPT13	240.59734552	131213.31436203	127.12	0.0001
OPT14	7651.4411639	3966.38186443	3.84	0.0524

THE ABOVE MODEL IS THE BEST 7 VARIABLE MODEL FOUND.



## GENERAL LINEAR MODELS PROCEDURE

SOURCE DE SS TYPE III SS MEAN SQUARE F VALUE PR &gt; F R-SQUARE C.V.

MODEL 7 30331.31546468 30.35 0.0001 0.662978 20.5388

ERROR 115 30331.31546468 265.2412 2.652412 0.0001 0.662978 20.5388

CORRECTED TOTAL 122 60662.63092936 495.5526 4.061824 0.0001 0.662978 20.5388

STDEV 31.61274307 153.76724138

SOURCE	DE	TYPE III SS	F VALUE	PR > F	DF	TYPE IV SS	F VALUE	PR > F
DEF12	1	0.0001	9.72	0.0001	1	16386.52532145	16.40	0.0001
DEF13	1	0.0001	37.18	0.0001	1	8618.86007885	8.62	0.0001
DEF14	1	0.0001	125.60	0.0001	1	3748.26909720	3.79	0.0001
EFF1	1	0.0001	3.51	0.0001	1	2991.51715677	2.99	0.0001
EFF2	1	0.0001	2.84	0.0001	1	3711.42496577	3.71	0.0001
EFF3	1	0.0001	1.83	0.0001	1	3730.15639059	3.73	0.0001
EFF4	1	0.0001	1.83	0.0001	1	1831.96469286	1.83	0.0001

PARAMETER ESTIMATE

PARAMETER	ESTIMATE	TYPE III SS	PR > F	DF	TYPE IV SS	F VALUE	PR > F
INTERCEPT	17.77	0.0001	0.0001	1	16386.52532145	16.40	0.0001
DEF12	0.0001	0.0001	0.0001	1	8618.86007885	8.62	0.0001
DEF13	0.0001	0.0001	0.0001	1	3748.26909720	3.79	0.0001
DEF14	0.0001	0.0001	0.0001	1	2991.51715677	2.99	0.0001
EFF1	0.0001	0.0001	0.0001	1	3711.42496577	3.71	0.0001
EFF2	0.0001	0.0001	0.0001	1	3730.15639059	3.73	0.0001
EFF3	0.0001	0.0001	0.0001	1	1831.96469286	1.83	0.0001
EFF4	0.0001	0.0001	0.0001	1	1831.96469286	1.83	0.0001

RESIDUAL LOWER 95% CL UPPER 95% CL

OBSERVATION	OBSERVED VALUE	PREDICTED VALUE	RESIDUAL	LOWER 95% CL INDIVIDUAL	UPPER 95% CL INDIVIDUAL
1	17.77	17.77	0.00	17.77	17.77
2	17.77	17.77	0.00	17.77	17.77
3	17.77	17.77	0.00	17.77	17.77
4	17.77	17.77	0.00	17.77	17.77
5	17.77	17.77	0.00	17.77	17.77
6	17.77	17.77	0.00	17.77	17.77
7	17.77	17.77	0.00	17.77	17.77
8	17.77	17.77	0.00	17.77	17.77
9	17.77	17.77	0.00	17.77	17.77
10	17.77	17.77	0.00	17.77	17.77
11	17.77	17.77	0.00	17.77	17.77
12	17.77	17.77	0.00	17.77	17.77
13	17.77	17.77	0.00	17.77	17.77
14	17.77	17.77	0.00	17.77	17.77
15	17.77	17.77	0.00	17.77	17.77
16	17.77	17.77	0.00	17.77	17.77
17	17.77	17.77	0.00	17.77	17.77
18	17.77	17.77	0.00	17.77	17.77
19	17.77	17.77	0.00	17.77	17.77
20	17.77	17.77	0.00	17.77	17.77
21	17.77	17.77	0.00	17.77	17.77
22	17.77	17.77	0.00	17.77	17.77
23	17.77	17.77	0.00	17.77	17.77

RESIDUAL LOWER 95% CL UPPER 95% CL

OBSERVATION	OBSERVED VALUE	PREDICTED VALUE	RESIDUAL	LOWER 95% CL INDIVIDUAL	UPPER 95% CL INDIVIDUAL
24	17.77	17.77	0.00	17.77	17.77
25	17.77	17.77	0.00	17.77	17.77
26	17.77	17.77	0.00	17.77	17.77
27	17.77	17.77	0.00	17.77	17.77
28	17.77	17.77	0.00	17.77	17.77
29	17.77	17.77	0.00	17.77	17.77
30	17.77	17.77	0.00	17.77	17.77
31	17.77	17.77	0.00	17.77	17.77
32	17.77	17.77	0.00	17.77	17.77
33	17.77	17.77	0.00	17.77	17.77
34	17.77	17.77	0.00	17.77	17.77
35	17.77	17.77	0.00	17.77	17.77
36	17.77	17.77	0.00	17.77	17.77
37	17.77	17.77	0.00	17.77	17.77
38	17.77	17.77	0.00	17.77	17.77



## GENERAL LINEAR MODEL PROCEDURE

DEPENDENT VARIABLE: Y

DEPENDENT VARIABLE: Y	INDEPENDENT VARIABLE	COEFFICIENT	ESTIMATE	INTERCEPT	UPPER 95% CL	INDIVIDUAL
1	1	1.0000000	2.6474582	1.0616054	1.52	232.54186684
2	2	1.0000000	1.3264718	76.1827768	76.1827768	203.1827768
3	3	1.0000000	3.6747114	72.8489345	72.8489345	199.79764258
4	4	1.0000000	62.8519225	34.1822236	34.1822236	166.10212962
5	5	1.0000000	24.3547626	87.3867947	87.3867947	215.82167991
6	6	1.0000000	30.2074270	76.9974632	76.9974632	203.17659398
7	7	1.0000000	22.8648104	87.3505121	87.3505121	214.23609458
8	8	1.0000000	22.8648104	88.7104586	88.7104586	215.5592086
9	9	1.0000000	14.1721259	92.5715627	92.5715627	215.38467253
10	10	1.0000000	6.6736306	96.0963329	96.0963329	222.33377157
11	11	1.0000000	-10.6736306	70.0963329	70.0963329	198.17051911
12	12	1.0000000	17.0382381	45.5727924	45.5727924	174.45223117
13	13	1.0000000	4.1359253	55.1339995	55.1339995	184.56342031
14	14	1.0000000	-1.9611751	35.0992059	35.0992059	174.47097264
15	15	1.0000000	3.7890207	57.9121163	57.9121163	184.50984214
16	16	1.0000000	-10.1543275	58.5427664	58.5427664	185.74439836
17	17	1.0000000	-15.3359431	53.5636039	53.5636039	183.09822589
18	18	1.0000000	22.3598421	56.5458590	56.5458590	186.69255584
19	19	1.0000000	-30.5208735	57.5070192	57.5070192	188.67497914
20	20	1.0000000	-34.6308194	66.8024312	66.8024312	194.16574346
21	21	1.0000000	-26.8453708	69.7650782	69.7650782	197.50109306
22	22	1.0000000	-21.0858046	58.0071374	58.0071374	196.62255039
23	23	1.0000000	37.2681949	59.8476914	59.8476914	194.66595753
24	24	1.0000000	17.0764600	94.0511849	94.0511849	223.95592307
25	25	1.0000000	4.7857897	105.3745145	105.3745145	233.04739141
26	26	1.0000000	-33.7929471	206.1650283	206.1650283	253.71008859
27	27	1.0000000	-5.0937318	191.8421753	191.8421753	228.33524881
28	28	1.0000000	25.5927594	36.1119980	36.1119980	165.31814678
29	29	1.0000000	-9.3460271	100.2156245	100.2156245	226.11158085
30	30	1.0000000	-7.1658262	95.0041505	95.0041505	221.32151489
31	31	1.0000000	-51.1813053	90.1808312	90.1808312	189.52143884
32	32	1.0000000	-6.0700537	76.2958351	76.2958351	204.07877593
33	33	1.0000000	15.5832011	146.9265336	146.9265336	277.21357379
34	34	1.0000000	3.2937946	104.5215535	104.5215535	226.5133954
35	35	1.0000000	-12.6737504	128.4610860	128.4610860	230.89768752
36	36	1.0000000	-27.7422933	107.5808207	107.5808207	254.88549489
37	37	1.0000000	16.8543680	107.7267629	107.7267629	234.12159349
38	38	1.0000000	-39.3122924	150.0896958	150.0896958	223.30150782
39	39	1.0000000	98.4711375	104.0073157	104.0073157	280.09058517
40	40	1.0000000	36.9113930	180.3170482	180.3170482	327.01040917
41	41	1.0000000	22.7423384	181.6091371	181.6091371	317.84807313
42	42	1.0000000	27.6046874	138.8420854	138.8420854	208.90257860
43	43	1.0000000	-30.2711060	186.5169706	186.5169706	269.84509699
44	44	1.0000000	20.9636192	224.0232999	224.0232999	345.63424109
45	45	1.0000000	-49.3531880	169.1500260	169.1500260	360.47694340
46	46	1.0000000	-4.4137406	78.0867585	78.0867585	300.91973538
47	47	1.0000000	-4.2111521	81.8857690	81.8857690	279.77001279
48	48	1.0000000	-5.9528739	82.4397189	82.4397189	206.02083574
49	49	1.0000000	-3.1755730	81.7925690	81.7925690	208.94171233
50	50	1.0000000	-5.1732826	82.4397189	82.4397189	209.48985584
51	51	1.0000000	22.1373548	26.2125611	26.2125611	208.32610691
52	52	1.0000000	69.8093249	26.2125611	26.2125611	207.02850127
53	53	1.0000000	-7.7258271	12.3562932	12.3562932	151.6303413
54	54	1.0000000	-19.7425678	27.3972204	27.3972204	156.59205235
55	55	1.0000000	-5.9216169	112.0194373	112.0194373	156.59205235
56	56	1.0000000	1.2201377	85.2634663	85.2634663	144.57235039
57	57	1.0000000	-13.4245483	86.2093658	86.2093658	156.05125152
58	58	1.0000000	-28.0765022	86.2093658	86.2093658	239.82344845
59	59	1.0000000	-15.0760855	12.1899101	12.1899101	211.80159171
60	60	1.0000000	-13.4778441	1.6009686	1.6009686	212.01650607
61	61	1.0000000	1.2201377	85.2634663	85.2634663	212.01650607
62	62	1.0000000	-13.4245483	86.2093658	86.2093658	214.66512587
63	63	1.0000000	-28.0765022	86.2093658	86.2093658	214.66512587
64	64	1.0000000	-15.0760855	12.1899101	12.1899101	145.98826176
65	65	1.0000000	-13.4778441	1.6009686	1.6009686	145.98826176

66	66	1.0000000	145.6593739	145.6593739	145.6593739	209.48985584
67	67	1.0000000	145.6593739	145.6593739	145.6593739	208.32610691
68	68	1.0000000	145.6593739	145.6593739	145.6593739	207.02850127
69	69	1.0000000	145.6593739	145.6593739	145.6593739	151.6303413
70	70	1.0000000	145.6593739	145.6593739	145.6593739	156.59205235
71	71	1.0000000	145.6593739	145.6593739	145.6593739	156.59205235
72	72	1.0000000	145.6593739	145.6593739	145.6593739	144.57235039
73	73	1.0000000	145.6593739	145.6593739	145.6593739	156.05125152
74	74	1.0000000	145.6593739	145.6593739	145.6593739	239.82344845
75	75	1.0000000	145.6593739	145.6593739	145.6593739	211.80159171
76	76	1.0000000	145.6593739	145.6593739	145.6593739	212.01650607
77	77	1.0000000	145.6593739	145.6593739	145.6593739	214.66512587
78	78	1.0000000	145.6593739	145.6593739	145.6593739	214.66512587
79	79	1.0000000	145.6593739	145.6593739	145.6593739	145.98826176
80	80	1.0000000	145.6593739	145.6593739	145.6593739	145.98826176
81	81	1.0000000	145.6593739	145.6593739	145.6593739	145.98826176
82	82	1.0000000	145.6593739	145.6593739	145.6593739	145.98826176
83	83	1.0000000	145.6593739	145.6593739	145.6593739	145.98826176
84	84	1.0000000	145.6593739	145.6593739	145.6593739	145.98826176
85	85	1.0000000	145.6593739	145.6593739	145.6593739	145.98826176
86	86	1.0000000	145.6593739	145.6593739	145.6593739	145.98826176
87	87	1.0000000	145.6593739	145.6593739	145.6593739	145.98826176
88	88	1.0000000	145.6593739	145.6593739	145.6593739	145.98826176
89	89	1.0000000	145.6593739	145.6593739	145.6593739	145.98826176
90	90	1.0000000	145.6593739	145.6593739	145.6593739	145.98826176
91	91	1.0000000	145.6593739	145.6593739	145.6593739	145.98826176
92	92	1.0000000	145.6593739	145.6593739	145.6593739	145.98826176
93	93	1.0000000	145.6593739	145.6593739	145.6593739	145.98826176
94	94	1.0000000	145.6593739	145.6593739	145.6593739	145.98826176
95	95	1.0000000	145.6593739	145.6593739	145.6593739	145.98826176
96	96	1.0000000	145.6593739	145.6593739	145.6593739	145.98826176
97	97	1.0000000	145.6593739	145.6593739	145.6593739	145.98826176
98	98	1.0000000	145.6593739	145.6593739	145.6593739	145.98826176
99	99	1.0000000	145.6593739	145.6593739	145.6593739	145.98826176
100	100	1.0000000	145.6593739	145.6593739	145.6593739	145.98826176



1:31 TUESDAY, APRIL 26, 1983 7

STATISTICAL ANALYSIS SYSTEM  
GENERAL LINEAR MODELS PROCEDURE

DEPENDENT VARIABLE: VTE

OBSERVATION	OBSERVED VALUE	PREDICTED VALUE	RESIDUAL	LOWER 95% CL INDIVIDUAL	UPPER 95% CL INDIVIDUAL
110	127.00000000	77.73327220	29.26672780	11.31544676	144.15109765
111	128.00000000	80.72327220	28.27672780	14.2814108	148.4378338
112	129.00000000	146.72378002	88.35721998	123.3680641	249.91675363
113	127.00000000	281.03425001	154.03425001	182.42601806	319.76076796
114	128.00000000	261.25025774	133.25025774	197.25612105	333.64438443
115	128.00000000	150.74570886	9.74570886	76.94897800	204.54243978
116	129.00000000	150.32219691	9.32219691	85.83103666	212.81335717
117	128.00000000	152.62927862	24.62927862	91.12120483	217.93765244
118	127.00000000	132.07350542	5.07350542	69.43516424	196.51184664
119	127.00000000	150.74570886	9.74570886	85.83103666	212.81335717
120	129.00000000	150.32219691	9.32219691	85.83103666	212.81335717
121	128.00000000	152.62927862	24.62927862	91.12120483	217.93765244
122	127.00000000	132.07350542	5.07350542	69.43516424	196.51184664
123	128.00000000	150.74570886	9.74570886	85.83103666	212.81335717
124	129.00000000	150.32219691	9.32219691	85.83103666	212.81335717

\* OBSERVATION WAS NOT USED IN THIS ANALYSIS

SUM OF RESIDUALS -0.00000000  
SUM OF SQUARED RESIDUALS 107931.4768450  
SUM OF SQUARED TOTALS 129187.5888668  
PRESS STATISTIC 0.28320357  
FIRST ORDER AUTOCORRELATION 1.40118981  
DURBIN-WATSON D







STATISTICAL ANALYSIS SYSTEM  
MAXIMUM R-SQUARE IMPROVEMENT FOR DEPENDENT VARIABLE TAN

STEP 4 VARIABLE NOT ENTERED

F SQUARE = 0.7427338 CIP1 = 0.72405962

DE	R VALUE	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
INTERCEPT	1.03454981	38.64482524	9.66120631	85.89	0.0001
FO33	28.46000338	13.38572315	0.11248507		
FO3	0.17980230	52.03054835			
FO3	-0.03153644				
FO3	0.03108935				

DE	R VALUE	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
INTERCEPT	1.03454981	10.56697046	0.81646659	7.26	0.0081
FO33	28.46000338	0.02931515	4.23155350	37.62	0.0001
FO3	-0.03153644	0.01348520	2.01732338	17.93	0.0001
FO3	0.03108935	0.01072883	0.52116362	4.63	0.0334

THE ABOVE MODEL IS THE BEST 4 VARIABLE MODEL FOUND.

STEP 5 VARIABLE NOT ENTERED

F SQUARE = 0.75473954 CIP1 = 4.98675260

DE	R VALUE	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
INTERCEPT	1.01522850	39.26951241	7.85390248	72.62	0.0001
FO33	-0.01621025	12.76103597	0.10914437		
FO3	0.17522147	52.03054836			
FO3	-0.03153644				
FO3	0.03108935				

DE	R VALUE	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
INTERCEPT	1.01522850	1.95305510	0.62469718	5.78	0.0178
FO33	-0.01621025	10.39270152	0.92631078	8.57	0.0041
FO3	0.17522147	0.02680113	0.00169328	0.001	0.0001
FO3	-0.03153644	0.01450324	0.00095204	0.003	0.0003
FO3	0.03108935	0.01070662	0.00071123	0.676	0.0105

THE ABOVE MODEL IS THE BEST 5 VARIABLE MODEL FOUND.

STEP 6 VARIABLE NOT ENTERED

F SQUARE = 0.75780625 CIP1 = 5.53394033

DE	R VALUE	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
INTERCEPT	1.02905040	39.42907476	6.57151246	61.01	0.0001
FO33	-0.01621025	12.60147363	0.10770490		
FO3	0.17522147	52.03054835			
FO3	-0.03153644				
FO3	0.03108935				

DE	R VALUE	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
INTERCEPT	1.02905040	0.00085910	0.15956234	1.48	0.2260
FO33	-0.01621025	2.71177090	0.78024086	7.24	0.0082
FO3	0.17522147	11.84671525	1.07255727	9.96	0.0020
FO3	-0.03153644	0.02875166	3.97678958	36.92	0.0001
FO3	0.03108935	0.01072883	1.51381871	14.06	0.0003
FO3	0.03108935	0.01123180	0.87749369	8.15	0.0051

THE ABOVE MODEL IS THE BEST 6 VARIABLE MODEL FOUND.



15:34 MONDAY, APRIL 25, 1983 3

STATISTICAL ANALYSIS SYSTEM  
MAXIMUM R-SQUARE IMPROVEMENT FOR DEPENDENT VARIABLE TAN

STEP 7 VARIABLE DET1413 ENTERED

F SQUARE = 0.76071591 C(P) = 6.38435891

DE		SUM OF SQUARES		MEAN SQUARE		F		PROB>F	
REGRESSION		7	39.5544566	5.65063581	52.54	0.0001			
ERROR		116	12.4760977	0.10755257					
TOTAL		123	52.03055435						
R VALUE		STD ERROR		TYPE II SS		F		PROB>F	
INTERCEPT		1.8426809	0.00095955	0.14549951	1.35	0.2472			
DET13		-0.0000572	2.37828664	0.90003972	8.37	0.0046			
DET14		-0.0000000	11.94782513	1.15343255	10.72	0.0014			
DET14F2		0.18874683	0.01153127	3.85232763	35.82	0.0001			
DET14F3		-0.0000000	0.00034785	0.12537599	1.17	0.2825			
DET14F4		-0.0000000	0.0000000	1.58294272	14.72	0.0002			
DET14F5		0.0000000	0.01848527	0.72269636	6.72	0.0108			
TOTAL		123	52.03055435						
R VALUE		STD ERROR		TYPE II SS		F		PROB>F	
INTERCEPT		1.8426809	0.00123581	0.16055603	1.49	0.2240			
DET13		-0.0000072	2.18823274	0.90528990	8.43	0.0044			
DET14		-0.0000000	12.52223232	1.00982330	9.40	0.0027			
DET14F2		0.18874683	0.01153127	3.95438075	36.81	0.0001			
DET14F3		-0.0000000	0.00056578	0.29758550	2.77	0.0987			
DET14F4		-0.0000000	0.72196772	1.54257525	14.36	0.0002			
DET14F5		0.0000000	0.02116426	0.24038526	2.24	0.1374			
TOTAL		123	52.03055435						
R VALUE		STD ERROR		TYPE II SS		F		PROB>F	
INTERCEPT		1.8426809	0.00123581	0.16055603	1.49	0.2240			
DET13		-0.0000072	2.18823274	0.90528990	8.43	0.0044			
DET14		-0.0000000	12.52223232	1.00982330	9.40	0.0027			
DET14F2		0.18874683	0.01153127	3.95438075	36.81	0.0001			
DET14F3		-0.0000000	0.00056578	0.29758550	2.77	0.0987			
DET14F4		-0.0000000	0.72196772	1.54257525	14.36	0.0002			
DET14F5		0.0000000	0.02116426	0.24038526	2.24	0.1374			
TOTAL		123	52.03055435						
R VALUE		STD ERROR		TYPE II SS		F		PROB>F	
INTERCEPT		1.8426809	0.00123581	0.16055603	1.49	0.2240			
DET13		-0.0000072	2.18823274	0.90528990	8.43	0.0044			
DET14		-0.0000000	12.52223232	1.00982330	9.40	0.0027			
DET14F2		0.18874683	0.01153127	3.95438075	36.81	0.0001			
DET14F3		-0.0000000	0.00056578	0.29758550	2.77	0.0987			
DET14F4		-0.0000000	0.72196772	1.54257525	14.36	0.0002			
DET14F5		0.0000000	0.02116426	0.24038526	2.24	0.1374			
TOTAL		123	52.03055435						

STEP 7		C(1) REPLACED BY DET132		F SQUARE = 0.76050548		C(P) = 6.24622489		PROB>F	
DE		SUM OF SQUARES		MEAN SQUARE		F		PROB>F	
REGRESSION		7	39.56551718	5.65278817	52.62	0.0001			
ERROR		116	12.46103121	0.10742268					
TOTAL		123	52.02654839						
R VALUE		STD ERROR		TYPE II SS		F		PROB>F	
INTERCEPT		1.846674908	0.00123581	0.160555603	1.49	0.2240			
DET13		-0.000151572	2.18823274	0.90524899	8.43	0.0044			
DET14		-0.0000000	12.52223232	1.00982330	9.40	0.0027			
DET14F2		0.18874683	0.01153127	3.95438075	36.81	0.0001			
DET14F3		-0.0000000	0.00056578	0.29758550	2.77	0.0987			
DET14F4		-0.0000000	0.72196772	1.54257525	14.36	0.0002			
DET14F5		0.0000000	0.02116426	0.24038526	2.24	0.1374			
TOTAL		123	52.02654839						
R VALUE		STD ERROR		TYPE II SS		F		PROB>F	
INTERCEPT		1.846674908	0.00123581	0.160555603	1.49	0.2240			
DET13		-0.000151572	2.18823274	0.90524899	8.43	0.0044			
DET14		-0.0000000	12.52223232	1.00982330	9.40	0.0027			
DET14F2		0.18874683	0.01153127	3.95438075	36.81	0.0001			
DET14F3		-0.0000000	0.00056578	0.29758550	2.77	0.0987			
DET14F4		-0.0000000	0.72196772	1.54257525	14.36	0.0002			
DET14F5		0.0000000	0.02116426	0.24038526	2.24	0.1374			
TOTAL		123	52.02654839						

STEP 7		C(1) REPLACED BY DET14F3		F SQUARE = 0.76262550		C(P) = 5.23490999		PROB>F	
DE		SUM OF SQUARES		MEAN SQUARE		F		PROB>F	
REGRESSION		7	39.67982302	5.66854615	53.24	0.0001			
ERROR		116	12.35018536	0.10647177					
TOTAL		123	52.03000838						
R VALUE		STD ERROR		TYPE II SS		F		PROB>F	
INTERCEPT		1.841572450	0.00123581	0.160555603	1.49	0.2240			
DET13		-0.0000000	2.18823274	0.90524899	8.43	0.0044			
DET14		-0.0000000	12.52223232	1.00982330	9.40	0.0027			
DET14F2		0.18874683	0.01153127	3.95438075	36.81	0.0001			
DET14F3		-0.0000000	0.00056578	0.29758550	2.77	0.0987			
DET14F4		-0.0000000	0.72196772	1.54257525	14.36	0.0002			
DET14F5		0.0000000	0.02116426	0.24038526	2.24	0.1374			
TOTAL		123	52.03000838						
R VALUE		STD ERROR		TYPE II SS		F		PROB>F	
INTERCEPT		1.841572450	0.00123581	0.160555603	1.49	0.2240			
DET13		-0.0000000	2.18823274	0.90524899	8.43	0.0044			
DET14		-0.0000000	12.52223232	1.00982330	9.40	0.0027			
DET14F2		0.18874683	0.01153127	3.95438075	36.81	0.0001			
DET14F3		-0.0000000	0.00056578	0.29758550	2.77	0.0987			
DET14F4		-0.0000000	0.72196772	1.54257525	14.36	0.0002			
DET14F5		0.0000000	0.02116426	0.24038526	2.24	0.1374			
TOTAL		123	52.03000838						

STEP 7 CL1 REPLACED BY DET132

F SQUARE = 0.76050548 C(P) = 6.24622489

DE		SUM OF SQUARES	MEAN SQUARE	F	PROB>F
REGRESSION		7	5.65278817	52.62	0.0001
ERROR		116	0.10742268		
TOTAL		123			
R VALUE		STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT		1.84674008	0.16055603	1.49	0.2240
DET13		0.00151572	0.90524890	8.43	0.0044
DET14		-0.00000000	1.00982330	9.40	0.0027
DET14F2		0.003336127	3.95438075	36.81	0.0001
DET14F3		0.00000000	0.29758550	2.77	0.0987
DET14F4		-0.00000000	1.54257525	12.36	0.0002
DET14F5		0.02116426	0.24038526	12.36	0.0002
TOTAL		0.03165986			0.1374
STEP 7 F03 REPI REPI BY DET14F3 C(P) = 5.23490999					
DE		SUM OF SQUARES	MEAN SQUARE	F	PROB>F
REGRESSION		7	5.66854615	53.24	0.0001
ERROR		116	0.10647177		
TOTAL		123			
R VALUE		STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT		1.841572450	0.38538437	3.62	0.0596
DET13		0.00235426	1.04980068	9.86	0.0021
DET14		-0.00000000	0.742569853	6.97	0.0064
DET14F2		0.0077116523	4.76519811	44.79	0.0001
DET14F3		0.00000000	1.65288110	15.52	0.0001
DET14F4		-0.00000000	0.66066169	6.21	0.0141
DET14F5		0.020654218	0.23038305	15.52	0.0001
TOTAL		0.020654218			0.1590

STEP 7 F03 REPLACED BY DET14F3

F SQUARE = 0.76262550 C(P) = 5.23490999

DE		SUM OF SQUARES		MEAN SQUARE		F		PROB>F	
REGRESSION		7	39.67982302	5.66854615	53.24	0.0001			
ERROR		116	12.35072532	0.10647177					
TOTAL		123	52.03054835						
P VALUE		STD ERROR		TYPE II SS		F		PROB>F	
INTERCEPT		1.84157451	0.00123454	0.38538437	3.62	0.0596			
DET13		-0.00235626	2.16398760	1.04989068	9.86	0.0021			
DET14		-0.70531465	10.5158308	0.74256983	6.97	0.0064			
DET14F2		0.77116523	0.03745778	4.76919811	44.79	0.0001			
DET14F3		-0.77252318	0.02484416	1.65288110	15.52	0.0001			
DET14F4		-0.0078763	0.00038256	0.66006169	6.21	0.0141			
DET14F5		-0.00145143	0.02091321	0.21393505	2.01	0.1590			
TOTAL		0.02656218							

THE ABOVE MODEL IS THE BEST 7 VARIABLE MODEL FOUND.



## DEPENDENT VARIABLE: Y

SOURCE		DF	SUM OF SQUARES	MEAN SQUARE	F VALUE	PR > F	R-SQUARE	C.V.	
MODEL		7	5.66854615	5.66854615	53.24	0.0001	0.762626	11.8682	
ERROR		116	0.12647177	0.00108985				TAN MEAN	
CORRECTED TOTAL		123	5.79501793				0.762626	2.74935484	
SOURCE		DF	TYPE I SS	F VALUE	PR > F	DF	TYPE IV SS	F VALUE	PR > F
DEF133		1	5.15483500	236.26	0.0001	1	0.2853837	3.62	0.0596
DEF1		1	1.77576256	19.86	0.0001	1	1.04980268	9.86	0.0021
DEF2		1	3.11440002	32.84	0.0001	1	0.74259853	6.97	0.0094
DEF14F2		1	3.23332614	32.84	0.0001	1	4.76919811	44.79	0.0001
DEF14F3		1	1.30634008	13.22	0.0017	1	1.65288110	15.52	0.0001
DEF14F4		1	2.56575678	25.60	0.0197	1	0.66096169	6.21	0.0151
DEF12		1	3.21533505	2.01	0.1590	1	0.21393505	2.01	0.1590
PARAMETER		ESTIMATE	1 STD. ERROR OF ESTIMATE	PR >  T	RESIDUAL	LOWER 95% CL FOR MEAN	UPPER 95% CL FOR MEAN		
INTERCEPT		1.06157450	15.12	0.0001	0.71125380	2.34044536	2.55704704		
DEF133		1.70255535	1.500	0.0001	0.20159390	2.33321800	2.54296321		
DEF1		-4.78531445	-3.14	0.0021	0.14480444	2.34666407	2.56573304		
DEF2		2.77110553	2.64	0.0094	0.0574231	2.64211386	2.8999352		
DEF14F2		-0.21312294	2.69	0.0201	0.22137070	2.61827128	2.79914451		
DEF14F3		-0.30787773	-2.52	0.0001	-0.02335753	2.10356763	2.30128382		
DEF14F4		-0.30145140	-2.49	0.0141	-0.13542242	2.0832412	2.24090071		
DEF12		1.02056418	1.22	0.1590	-0.2248655	2.0672732	2.26420578		
PRESERVATION		CASED	RESIDUAL VALUE	PREDICTED VALUE	RESIDUAL	LOWER 95% CL FOR MEAN	UPPER 95% CL FOR MEAN		
1	1.60000000	2.42876220		2.42876220	0.13913708	2.34044536	2.55704704		
2	2.40000000	2.42876220		2.42876220	0.20159390	2.33321800	2.54296321		
3	2.61000000	2.46519856		2.46519856	0.14480444	2.34666407	2.56573304		
4	2.63000000	2.76282365		2.76282365	0.0574231	2.64211386	2.86099352		
5	2.03000000	2.70892377		2.70892377	0.22137070	2.61827128	2.79914451		
6	1.80000000	2.20537573		2.20537573	-0.02335753	2.10356763	2.30128382		
7	2.00000000	2.12916242		2.12916242	-0.13542242	2.0832412	2.24090071		
8	2.00000000	2.12916242		2.12916242	-0.2248655	2.0672732	2.26420578		
9	2.00000000	2.12916242		2.12916242	-0.13913708	2.07252945	2.25274471		
10	2.00000000	2.12916242		2.12916242	0.20159390	2.06546256	2.29415359		
11	2.00000000	2.12916242		2.12916242	0.00304350	2.00332103	2.33855196		
12	2.00000000	2.12916242		2.12916242	0.17411417	2.03491117	2.53086050		
13	2.00000000	2.12916242		2.12916242	-0.09655705	2.18529536	2.70771875		
14	2.00000000	2.12916242		2.12916242	-0.2136319	2.56051196	3.30678443		
15	2.00000000	2.12916242		2.12916242	1.63165754	2.49311457	3.69448956		
16	2.00000000	2.12916242		2.12916242	-0.27197826	2.50875071	2.71309601		
17	2.00000000	2.12916242		2.12916242	0.08770694	2.96173684	3.23074924		
18	2.00000000	2.12916242		2.12916242	0.09166827	3.16205512	3.38160835		
19	2.00000000	2.12916242		2.12916242	0.44589697	3.56882230	3.87104763		
20	2.00000000	2.12916242		2.12916242	0.20825220	3.15900647	4.53085293		
21	2.00000000	2.12916242		2.12916242	0.1723617	3.40151135	4.02347559		
22	2.00000000	2.12916242		2.12916242	-0.45522358	2.47151040	4.35009726		
23	2.00000000	2.12916242		2.12916242			3.18500174		

24	2.41000000	2.01096512	-0.38695512	2.66747061	2.95425955
25	2.71000000	2.17816564	-0.46516216	2.05571309	2.33007014
26	2.50000000	2.07325106	-0.5132319	2.89627835	2.52517680
27	2.50000000	2.70000000	-0.51698845	2.40561337	2.53946433
28	2.60000000	2.71675504	-0.51236704	2.3334743	2.90801065
29	2.00000000	2.70165502	-0.51260471	2.55922066	2.02418512
30	2.61000000	2.2769727	-0.50126571	2.03412557	2.44126916
31	2.40000000	2.6460094	-0.00537314	2.65227817	3.03696352
32	2.30000000	2.65012312	-0.06387988	2.78274031	3.21549994
33	2.70000000	2.25904269	-0.01564299	2.17914598	2.39274001
34	2.06000000	2.55636327	-0.03637322	2.20157485	2.38781008
35	1.00000000	2.35739136	-0.35673210	2.56484822	2.55979387
36	2.30000000	2.2507488	-0.37020478	2.07203035	2.56489192
37	2.50000000	2.76500000	-0.51365000	2.26244047	2.47057756
38	2.60000000	2.36574518	-0.18525682	2.30189771	2.48959856



INTERSECTION

STREET VALUE

RESIDUAL

LOWER 95% CL FOR MEAN

UPPER 95% CL FOR MEAN

30	1.2000000	2.52423250	-0.25320250	2.44031344	2.62809156
31	1.2000000	7.0087297	0.1850999	2.00163907	3.0178382
32	1.2000000	1.17190611	0.1450999	2.05864798	3.026753224
33	1.2000000	2.2462084	0.227817	2.6527817	3.03696352
34	1.2000000	1.17190612	0.227817	2.12111208	3.02054173
35	1.2000000	2.7107272	0.325388	2.03414782	3.2405441
36	1.2000000	2.2462084	0.01157372	2.17990622	2.36395122
37	1.2000000	2.1841110	0.295582	2.10229201	2.37579634
38	1.2000000	2.1841110	0.00158840	2.23016610	2.40665709
39	1.2000000	2.6747133	0.3127742	2.4211882	2.51126655
40	1.2000000	2.6747133	0.30487133	2.47109703	2.57865564
41	1.2000000	2.6747133	0.2664108	2.45813711	2.501384239
42	1.2000000	2.6747133	0.2291954	2.37460357	2.48442187
43	1.2000000	2.6747133	0.1954328	2.37460357	2.48442187
44	1.2000000	2.6747133	0.1654328	2.37460357	2.48442187
45	1.2000000	2.6747133	0.1354328	2.37460357	2.48442187
46	1.2000000	2.6747133	0.1054328	2.37460357	2.48442187
47	1.2000000	2.6747133	0.0754328	2.37460357	2.48442187
48	1.2000000	2.6747133	0.0454328	2.37460357	2.48442187
49	1.2000000	2.6747133	0.0154328	2.37460357	2.48442187
50	1.2000000	2.6747133	0.00158840	2.37460357	2.48442187
51	1.2000000	2.6747133	0.00158840	2.37460357	2.48442187
52	1.2000000	2.6747133	0.00158840	2.37460357	2.48442187
53	1.2000000	2.6747133	0.00158840	2.37460357	2.48442187
54	1.2000000	2.6747133	0.00158840	2.37460357	2.48442187
55	1.2000000	2.6747133	0.00158840	2.37460357	2.48442187
56	1.2000000	2.6747133	0.00158840	2.37460357	2.48442187
57	1.2000000	2.6747133	0.00158840	2.37460357	2.48442187
58	1.2000000	2.6747133	0.00158840	2.37460357	2.48442187
59	1.2000000	2.6747133	0.00158840	2.37460357	2.48442187
60	1.2000000	2.6747133	0.00158840	2.37460357	2.48442187
61	1.2000000	2.6747133	0.00158840	2.37460357	2.48442187
62	1.2000000	2.6747133	0.00158840	2.37460357	2.48442187
63	1.2000000	2.6747133	0.00158840	2.37460357	2.48442187
64	1.2000000	2.6747133	0.00158840	2.37460357	2.48442187
65	1.2000000	2.6747133	0.00158840	2.37460357	2.48442187
66	1.2000000	2.6747133	0.00158840	2.37460357	2.48442187
67	1.2000000	2.6747133	0.00158840	2.37460357	2.48442187
68	1.2000000	2.6747133	0.00158840	2.37460357	2.48442187
69	1.2000000	2.6747133	0.00158840	2.37460357	2.48442187
70	1.2000000	2.6747133	0.00158840	2.37460357	2.48442187
71	1.2000000	2.6747133	0.00158840	2.37460357	2.48442187
72	1.2000000	2.6747133	0.00158840	2.37460357	2.48442187
73	1.2000000	2.6747133	0.00158840	2.37460357	2.48442187
74	1.2000000	2.6747133	0.00158840	2.37460357	2.48442187
75	1.2000000	2.6747133	0.00158840	2.37460357	2.48442187
76	1.2000000	2.6747133	0.00158840	2.37460357	2.48442187
77	1.2000000	2.6747133	0.00158840	2.37460357	2.48442187
78	1.2000000	2.6747133	0.00158840	2.37460357	2.48442187
79	1.2000000	2.6747133	0.00158840	2.37460357	2.48442187
80	1.2000000	2.6747133	0.00158840	2.37460357	2.48442187
81	1.2000000	2.6747133	0.00158840	2.37460357	2.48442187
82	1.2000000	2.6747133	0.00158840	2.37460357	2.48442187
83	1.2000000	2.6747133	0.00158840	2.37460357	2.48442187
84	1.2000000	2.6747133	0.00158840	2.37460357	2.48442187
85	1.2000000	2.6747133	0.00158840	2.37460357	2.48442187
86	1.2000000	2.6747133	0.00158840	2.37460357	2.48442187
87	1.2000000	2.6747133	0.00158840	2.37460357	2.48442187
88	1.2000000	2.6747133	0.00158840	2.37460357	2.48442187
89	1.2000000	2.6747133	0.00158840	2.37460357	2.48442187
90	1.2000000	2.6747133	0.00158840	2.37460357	2.48442187
91	1.2000000	2.6747133	0.00158840	2.37460357	2.48442187
92	1.2000000	2.6747133	0.00158840	2.37460357	2.48442187
93	1.2000000	2.6747133	0.00158840	2.37460357	2.48442187
94	1.2000000	2.6747133	0.00158840	2.37460357	2.48442187

95	1.2000000	2.6747133	0.00158840	2.37460357	2.48442187
96	1.2000000	2.6747133	0.00158840	2.37460357	2.48442187
97	1.2000000	2.6747133	0.00158840	2.37460357	2.48442187
98	1.2000000	2.6747133	0.00158840	2.37460357	2.48442187
99	1.2000000	2.6747133	0.00158840	2.37460357	2.48442187
100	1.2000000	2.6747133	0.00158840	2.37460357	2.48442187
101	1.2000000	2.6747133	0.00158840	2.37460357	2.48442187
102	1.2000000	2.6747133	0.00158840	2.37460357	2.48442187
103	1.2000000	2.6747133	0.00158840	2.37460357	2.48442187
104	1.2000000	2.6747133	0.00158840	2.37460357	2.48442187
105	1.2000000	2.6747133	0.00158840	2.37460357	2.48442187
106	1.2000000	2.6747133	0.00158840	2.37460357	2.48442187
107	1.2000000	2.6747133	0.00158840	2.37460357	2.48442187
108	1.2000000	2.6747133	0.00158840	2.37460357	2.48442187
109	1.2000000	2.6747133	0.00158840	2.37460357	2.48442187
110	1.2000000	2.6747133	0.00158840	2.37460357	2.48442187



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# STATISTICAL ANALYSIS SYSTEM

## GENERAL LINEAR MODELS PROCEDURE

DEPENDENT VARIABLE: TAD

OBSERVATION	OBSERVED VALUE	PREDICTED VALUE	RESIDUAL	LOWER 95% CL FOR MEAN	UPPER 95% CL FOR MEAN
110	2.06000000	1.6475860	0.4124131	1.78898677	2.10053061
111	1.68000000	1.9693517	-0.2883517	1.81699952	2.12580082
112	2.43000000	2.5676343	-0.1376343	2.45663436	2.6853848
113	2.49000000	2.9070501	-0.4170501	2.44601159	2.96810043
114	2.75000000	2.4330196	0.3169804	2.24023104	2.90875778
115	2.30000000	2.0753360	0.2246640	1.95446024	2.21820495
116	2.07000000	2.1431880	-0.0731880	2.11821728	2.31042031
117	2.09000000	2.1260023	-0.0360023	2.23770245	2.41411401
118	2.70000000	2.4660527	-0.0260527	2.39726339	2.59484396
119	2.69000000	2.6153878	-0.0253878	2.50987161	2.72089995
120	2.06000000	2.7101367	0.2408327	2.60657812	2.83169534
121	2.01000000	2.7251613	0.6314387	2.02346353	2.52156873
122	2.00000000	2.1613848	0.23871152	2.06306926	2.31950770
123	2.69000000	2.5275503	0.0624498	2.42665959	2.62846046
124	2.53000000	2.3872600	0.14273950	2.29787609	2.47664492
SUM OF RESIDUALS					
SUM OF SQUARED RESIDUALS = 12.35072536					
SUM OF SQUARED RESIDUALS - ERROR SS					
PRESS STATISTIC = 16.22625726					
FIRST ORDER AUTOCORRELATION = 0.02170501					
DURBIN-WATSON D = 1.91198081					



DE	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
REGRESSION	1.78318036	1.78318036	409.00	0.0001
ERROR	0.53189628	0.00435983		
TOTAL	2.31507664			
R VALUE	STD ERROR	TYPE II SS	F	PROB>F
0.8972667				
0.00124164				
0.00015918				
INTERCEPT	0.0000234	1.78318036	409.00	0.0001
CL114				

THE ABOVE MODEL IS THE BEST 1 VARIABLE MODEL FOUND.

STEP 2 VARIABLE CL114 ENTERED F SQUARE = 0.80238485 C(P) = 42.27086864

DE	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
REGRESSION	1.85758500	0.92879250	245.65	0.0001
ERROR	0.45749184	0.00378095		
TOTAL	2.31507684			
R VALUE	STD ERROR	TYPE II SS	F	PROB>F
0.9140375				
0.0008309				
0.00002920				
INTERCEPT	0.00019907	0.07440464	19.68	0.0001
CL114	0.00000463	0.15033375	39.76	0.0001

STEP 2 CL114 REPLACED BY DET133 F SQUARE = 0.80564608 C(P) = 39.62592953

DE	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
REGRESSION	1.86513500	0.93256750	250.79	0.0001
ERROR	0.44994184	0.00371855		
TOTAL	2.31507684			
R VALUE	STD ERROR	TYPE II SS	F	PROB>F
-0.00762285				
0.00180320				
0.00025311				
INTERCEPT	0.00009725	1.27875869	343.89	0.0001
CL114	0.00003885	0.15788376	42.46	0.0001

THE ABOVE MODEL IS THE BEST 2 VARIABLE MODEL FOUND.

STEP 3 VARIABLE CL114 ENTERED F SQUARE = 0.81734740 C(P) = 32.13586724

DE	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
REGRESSION	1.89222448	0.63074149	178.99	0.0001
ERROR	0.42285236	0.00352379		
TOTAL	2.31507684			
R VALUE	STD ERROR	TYPE II SS	F	PROB>F
0.8972667				
0.00124164				
0.00015918				
INTERCEPT	0.00022363	0.10862571	30.83	0.0001
CL114	0.00005077	0.03463949	9.83	0.0001

CL114 0.0000600 0.02708948 7.69 0.0064



STEP 3 DEPT3 REPLACED BY FD3 MAXIMUM R-SQUARE IMPROVEMENT FOR DEPENDENT VARIABLE IS P SQUARE = 0.82501011 C(P) = 25.92121030

DEPT3	FD3	MEAN SQUARE	F	PROB>F
INTERCEPT				
CL1		0.09996428	188.58	0.0001
CL2		0.40511458		
CL14		0.00337596		
TOTAL		2.31507584		
DEPT3	FD3	TYPE II SS	F	PROB>F
INTERCEPT				
CL1		0.09548038	28.28	0.0001
CL2		0.13342616	15.52	0.0001
CL14		0.07285418	21.58	0.0001
TOTAL		0.00000474		

STEP 3 CL1 REPLACED BY CL2 R SQUARE = 0.82660905 C(P) = 24.62443687

CL1	CL2	MEAN SQUARE	F	PROB>F
INTERCEPT				
CL1		0.13346554	190.69	0.0001
CL2		0.40141390		
CL14		0.00334512		
TOTAL		2.31507584		
CL1	CL2	TYPE II SS	F	PROB>F
INTERCEPT				
CL1		0.09318203	29.65	0.0001
CL2		0.06366264	19.03	0.0001
CL14		0.08313389	26.10	0.0001
TOTAL		0.00000450		

THE ABOVE MODEL IS THE BEST 3 VARIABLE MODEL FOUND.

STEP 4 VARIABLE DEPT14 ENTERED R SQUARE = 0.83029968 C(P) = 23.63124264

DEPT14	FD3	MEAN SQUARE	F	PROB>F
INTERCEPT				
CL1		0.09318203	29.65	0.0001
CL2		0.06366264	19.03	0.0001
CL14		0.08313389	26.10	0.0001
TOTAL		0.00000450		
DEPT14	FD3	TYPE II SS	F	PROB>F
INTERCEPT				
CL1		0.06474040	19.61	0.0001
CL2		0.00854419	2.59	0.1103
CL14		0.06160662	18.66	0.0001
TOTAL		0.07423797	22.49	0.0001

THE ABOVE MODEL IS THE BEST 4 VARIABLE MODEL FOUND.

STEP 5 VARIABLE FD3 ENTERED R SQUARE = 0.83629480 C(P) = 20.76905624

FD3	CL1	CL2	CL14	MEAN SQUARE	F	PROB>F
INTERCEPT						
CL1				0.09318203	29.65	0.0001
CL2				0.06366264	19.03	0.0001
CL14				0.08313389	26.10	0.0001
TOTAL				0.00000450		
FD3	CL1	CL2	CL14	TYPE II SS	F	PROB>F
INTERCEPT						
CL1				0.06474040	19.61	0.0001
CL2				0.00854419	2.59	0.1103
CL14				0.06160662	18.66	0.0001
TOTAL				0.07423797	22.49	0.0001

THE ABOVE MODEL IS THE BEST 5 VARIABLE MODEL FOUND.

FD3	CL1	CL2	CL14	MEAN SQUARE	F	PROB>F
INTERCEPT						
CL1				0.09318203	29.65	0.0001
CL2				0.06366264	19.03	0.0001
CL14				0.08313389	26.10	0.0001
TOTAL				0.00000450		
FD3	CL1	CL2	CL14	TYPE II SS	F	PROB>F
INTERCEPT						
CL1				0.06474040	19.61	0.0001
CL2				0.00854419	2.59	0.1103
CL14				0.06160662	18.66	0.0001
TOTAL				0.07423797	22.49	0.0001

THE ABOVE MODEL IS THE BEST 6 VARIABLE MODEL FOUND.

FD3	CL1	CL2	CL14	MEAN SQUARE	F	PROB>F
INTERCEPT						
CL1				0.09318203	29.65	0.0001
CL2				0.06366264	19.03	0.0001
CL14				0.08313389	26.10	0.0001
TOTAL				0.00000450		
FD3	CL1	CL2	CL14	TYPE II SS	F	PROB>F
INTERCEPT						
CL1				0.06474040	19.61	0.0001
CL2				0.00854419	2.59	0.1103
CL14				0.06160662	18.66	0.0001
TOTAL				0.07423797	22.49	0.0001



STEP 6 VARIABLE DETAIL ENTERED STATISTICAL ANALYSIS SYSTEM  
 MAXIMUM F-SQUARE IMPROVEMENT FOR DEPENDENT VARIABLE TS  
 F SQUARE = 0.83914292 CIP1 = 20.45914683

DE	REGRESSION	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
113	1.94268286	0.00036455	0.08371304	26.30	0.0001
123	0.37233698	0.00000452	0.00000452	0.07	0.1527
TOTAL	2.31507984	0.00111473	0.00000452	2.07	0.0201
		0.00111473	0.00000452	2.07	0.0201
		0.00111473	0.00000452	2.07	0.0201
		0.00000120	0.00000012	0.04	0.0358
		0.00000120	0.00000012	0.04	0.0358

THE ABOVE MODEL IS THE BEST 6 VARIABLE MODEL FOUND.

STEP 7 VARIABLE DETAIL ENTERED P SQUARE = 0.84133171 CIP1 = 20.68398884

DE	REGRESSION	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
113	1.94775007	0.00037402	0.0877814	28.04	0.0001
123	0.38732577	0.00000553	0.00000553	1.97	0.1626
TOTAL	2.33507584	0.00000655	0.00000655	1.60	0.2087
		0.00120382	0.00000655	1.60	0.2087
		0.00120382	0.00000655	1.60	0.2087
		0.00000125	0.00000012	0.07	0.0002
		0.00000125	0.00000012	0.07	0.0002

STEP 7 DETAIL REPLACED BY CIP13 P SQUARE = 0.85775402 CIP1 = 7.36507461

DE	REGRESSION	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
113	1.98576905	0.00035090	0.08047939	28.35	0.0001
123	0.32931079	0.00001321	0.00001321	16.47	0.0001
TOTAL	2.31507984	0.00001642	0.00001642	16.47	0.0001
		0.00001642	0.00001642	16.47	0.0001
		0.00001642	0.00001642	16.47	0.0001
		0.00001642	0.00001642	16.47	0.0001
		0.00001642	0.00001642	16.47	0.0001

THE ABOVE MODEL IS THE BEST 7 VARIABLE MODEL FOUND.



SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	PR > F	F VALUE	K-SQUARE	C.V.	
MODEL	7	1.08476505	0.28348125	0.0001	98.93	0.857754	30.5167	
ERROR	116	0.22071370	0.00283889				TS MEAN	
CORRECTED TOTAL	123	0.21507884			0.0001		0.17459677	
SOURCE	DF	TYPE I SS	F VALUE	PR > F	OF	TYPE IV SS	F VALUE	PR > F
CL12	1	1.47659122	576.28	0.0001	1	0.08047939	28.35	0.0001
DEL12	1	0.00005885	69.06	0.0001	1	0.04676243	16.47	0.0001
DEL14	1	0.00007891	3.48	0.0647	1	0.06246073	22.00	0.0001
F02	1	0.02479873	8.73	0.0038	1	0.09697781	34.16	0.0001
CL114	1	0.02364847	22.53	0.0001	1	0.10305708	36.30	0.0001
CL113	1	0.02967223	10.65	0.0016	1	0.0427283	15.60	0.0001
FD3	1	0.02641249	8.95	0.0034	1	0.02541349	8.95	0.0034
PARAMETER	ESTIMATE	TYPE III	PR > F	STD ERROR OF ESTIMATE				
INTERCEPT	0.06247925	0.0026		0.02028271				
CL12	0.0018831	0.0001		0.00015090				
DEL13	4.06	0.0001		0.00011321				
DEL14	-0.0077877	0.0001		0.0016345				
F02	-0.20368710	0.0001		0.2359845				
CL114	0.2376538E-06	0.0001		0.00001069				
CL113	-8.6488075E-05	0.0001		0.00002198				
FD3	1.42393373	0.0034		0.14169020				
OBSERVATION	CHSERVED VALUE	PREDICTED VALUE	RESIDUAL	LOWER 95% CL INDIVIDUAL	UPPER 95% CL INDIVIDUAL			
1	0.17030000	0.14617964	0.02412036	0.0373757	0.25362171			
2	0.17030000	0.13540527	0.03489473	0.0283060	0.24285594			
3	0.22030000	0.14472222	0.0755778	0.0379982	0.25178622			
4	0.16030000	0.18665381	-0.02635386	0.0800392	0.29329776			
5	0.18000000	0.20011364	-0.02011364	0.09340669	0.3068160			
6	0.22000000	0.04966382	-0.00066382	-0.05721955	0.15660719			
7	0.05000000	0.0105402	0.00010540	-0.05580584	0.15791388			
8	0.35000000	0.04800000	0.00100992	-0.05793108	0.15991124			
9	0.05000000	0.0614801	-0.0014801	-0.05058209	0.16288012			
10	0.05000000	0.06472795	-0.00472795	-0.04183162	0.17128751			
11	0.22000000	0.03731778	0.03268222	0.08766160	0.32697397			
12	0.20000000	0.0197841	0.0022159	0.20776732	0.431617951			
13	0.20000000	0.32472958	-0.02472958	0.21202732	0.43743153			
14	0.20000000	0.2516369	-0.02516369	0.20390197	0.44642340			
15	0.10030000	0.13643204	-0.02516369	0.02943879	0.44642340			
16	0.10030000	0.13643204	-0.02516369	0.02943879	0.44642340			
17	0.27030000	0.11802616	0.01837384	0.03053240	0.24343389			
18	0.27030000	0.11802616	0.01837384	0.03053240	0.24343389			
19	0.20000000	0.0306058	0.0006942	0.02013783	0.42686349			
20	0.20000000	0.0306058	0.0006942	0.02013783	0.42686349			
21	0.20000000	0.0306058	0.0006942	0.02013783	0.42686349			
22	0.20000000	0.0306058	0.0006942	0.02013783	0.42686349			
23	0.20000000	0.0306058	0.0006942	0.02013783	0.42686349			
24	0.20000000	0.0306058	0.0006942	0.02013783	0.42686349			
25	0.20000000	0.0306058	0.0006942	0.02013783	0.42686349			
26	0.20000000	0.0306058	0.0006942	0.02013783	0.42686349			
27	0.20000000	0.0306058	0.0006942	0.02013783	0.42686349			
28	0.20000000	0.0306058	0.0006942	0.02013783	0.42686349			
29	0.20000000	0.0306058	0.0006942	0.02013783	0.42686349			
30	0.20000000	0.0306058	0.0006942	0.02013783	0.42686349			
31	0.20000000	0.0306058	0.0006942	0.02013783	0.42686349			
32	0.20000000	0.0306058	0.0006942	0.02013783	0.42686349			
33	0.20000000	0.0306058	0.0006942	0.02013783	0.42686349			
34	0.20000000	0.0306058	0.0006942	0.02013783	0.42686349			
35	0.20000000	0.0306058	0.0006942	0.02013783	0.42686349			
36	0.20000000	0.0306058	0.0006942	0.02013783	0.42686349			
37	0.20000000	0.0306058	0.0006942	0.02013783	0.42686349			
38	0.20000000	0.0306058	0.0006942	0.02013783	0.42686349			
39	0.20000000	0.0306058	0.0006942	0.02013783	0.42686349			
40	0.20000000	0.0306058	0.0006942	0.02013783	0.42686349			
41	0.20000000	0.0306058	0.0006942	0.02013783	0.42686349			
42	0.20000000	0.0306058	0.0006942	0.02013783	0.42686349			
43	0.20000000	0.0306058	0.0006942	0.02013783	0.42686349			
44	0.20000000	0.0306058	0.0006942	0.02013783	0.42686349			
45	0.20000000	0.0306058	0.0006942	0.02013783	0.42686349			
46	0.20000000	0.0306058	0.0006942	0.02013783	0.42686349			
47	0.20000000	0.0306058	0.0006942	0.02013783	0.42686349			
48	0.20000000	0.0306058	0.0006942	0.02013783	0.42686349			
49	0.20000000	0.0306058	0.0006942	0.02013783	0.42686349			
50	0.20000000	0.0306058	0.0006942	0.02013783	0.42686349			
51	0.20000000	0.0306058	0.0006942	0.02013783	0.42686349			
52	0.20000000	0.0306058	0.0006942	0.02013783	0.42686349			
53	0.20000000	0.0306058	0.0006942	0.02013783	0.42686349			
54	0.20000000	0.0306058	0.0006942	0.02013783	0.42686349			
55	0.20000000	0.0306058	0.0006942	0.02013783	0.42686349			
56	0.20000000	0.0306058	0.0006942	0.02013783	0.42686349			
57	0.20000000	0.0306058	0.0006942	0.02013783	0.42686349			
58	0.20000000	0.0306058	0.0006942	0.02013783	0.42686349			
59	0.20000000	0.0306058	0.0006942	0.02013783	0.42686349			
60	0.20000000	0.0306058	0.0006942	0.02013783	0.42686349			
61	0.20000000	0.0306058	0.0006942	0.02013783	0.42686349			
62	0.20000000	0.0306058	0.0006942	0.02013783	0.42686349			
63	0.20000000	0.0306058	0.0006942	0.02013783	0.42686349			
64	0.20000000	0.0306058	0.0006942	0.02013783	0.42686349			
65	0.20000000	0.0306058	0.0006942	0.02013783	0.42686349			
66	0.20000000	0.0306058	0.0006942	0.02013783	0.42686349			
67	0.20000000	0.0306058	0.0006942	0.02013783	0.42686349			
68	0.20000000	0.0306058	0.0006942	0.02013783	0.42686349			
69	0.20000000	0.0306058	0.0006942	0.02013783	0.42686349			
70	0.20000000	0.0306058	0.0006942	0.02013783	0.42686349			
71	0.20000000	0.0306058	0.0006942	0.02013783	0.42686349			
72	0.20000000	0.0306058	0.0006942	0.02013783	0.42686349			
73	0.20000000	0.0306058	0.0006942	0.02013783	0.42686349			
74	0.20000000	0.0306058	0.0006942	0.02013783	0.42686349			
75	0.20000000	0.0306058	0.0006942	0.02013783	0.42686349			
76	0.20000000	0.0306058	0.0006942	0.02013783	0.42686349			
77	0.20000000	0.0306058	0.0006942	0.02013783	0.42686349			
78	0.20000000	0.0306058	0.0006942	0.02013783	0.42686349			
79	0.20000000	0.0306058	0.0006942	0.02013783	0.42686349			
80	0.20000000	0.0306058	0.0006942	0.02013783	0.42686349			
81	0.20000000	0.0306058	0.0006942	0.02013783	0.42686349			
82	0.20000000	0.0306058	0.0006942	0.02013783	0.42686349			
83	0.20000000	0.0306058	0.0006942	0.02013783	0.42686349			
84	0.20000000	0.0306058	0.0006942	0.02013783	0.42686349			
85	0.20000000	0.0306058	0.0006942	0.02013783	0.42686349			
86	0.20000000	0.0306058	0.0006942	0.02013783	0.42686349			
87	0.20000000	0.0306058	0.0006942	0.02013783	0.42686349			
88	0.20000000	0.0306058	0.0006942	0.02013783	0.42686349			
89	0.20000000	0.0306058	0.0006942	0.02013783	0.42686349			
90	0.20000000	0.0306058	0.0006942	0.02013783	0.42686349			
91	0.20000000	0.0306058	0.0006942	0.02013783	0.42686349			
92	0.20000000	0.0306058	0.0006942	0.02013783	0.42686349			
93	0.20000000	0.0306058	0.0006942	0.02013783	0.42686349			
94	0.20000000	0.0306058	0.0006942	0.02013783	0.42686349			
95	0.20000000	0.0306058	0.0006942	0.02013783	0.42686349			
96	0.20000000	0.0306058	0.0006942	0.02013783	0.42686349			
97	0.20000000	0.0306058	0.0006942	0.02013783	0.42686349			
98	0.20000000	0.0306058	0.0006942	0.02013783	0.42686349			
99	0.20000000	0.0306058	0.0006942	0.02013783	0.42686349			
100	0.20000000	0.0306058	0.0006942	0.02013783	0.42686349			

24	0.74000000	0.3523225	0.08776165	0.24259852	0.46187818
25	0.31000000	0.34973207	0.0775293	0.23978833	0.45762141
26	0.31000000	0.34645506	-0.03645504	0.23604127	0.45655595
27	0.32000000	0.36531100	-0.0353690	0.25090577	0.47925534
28	0.60300000	0.3601228	-0.03536772	0.24786392	0.47336064
29	0.37000000	0.37731888	-0.00721588	0.26201129	0.49242047
30	0.12000000	0.2020805	-0.08323935	0.09573868	0.31088143
31	0.37000000	0.20524541	-0.0675459	0.09763620	0.31285463
32	0.30000000	0.21871884	0.0121116	0.1061060	0.32688707
33	0.08033300	0.05433153	0.02561847	-0.00263209	0.16139516
34	0.05000000	0.03538965	0.01411031	-0.07119293	0.14296232
35	0.04000000	0.03068255	0.00331745	-0.07199095	0.14655614
36	0.34604520	0.03556780	0.02535220	-0.07253270	0.14792175
37	0.05000000	0.03556780	0.01443220	-0.07156690	0.1427049
38	0.60000000	0.04388680	0.01611320	-0.06633155	0.15111115



DEPENDENT VARIABLE: Y

OBSERVATION	POSTERIOR VALUE	RESIDUAL	LOWER-CL		UPPER-CL	
			INDIVIDUAL		INDIVIDUAL	
39	0.18000000	-0.0103801	-0.01683245	0.19670848	0.19670848	0.19670848
40	0.17000000	0.0889997	0.12059003	0.33826103	0.33826103	0.33826103
41	0.11000000	0.07172425	0.07172425	0.34657652	0.34657652	0.34657652
42	0.15000000	0.0447459	0.09763620	0.31285463	0.31285463	0.31285463
43	0.10000000	-0.0152133	0.1440139	0.3502125	0.3502125	0.3502125
44	0.10000000	0.02880741	0.1310550	0.34263981	0.34263981	0.34263981
45	0.09000000	0.0099827	-0.04802551	0.16604897	0.16604897	0.16604897
46	0.04000000	0.00198259	-0.04804674	0.16502155	0.16502155	0.16502155
47	0.05000000	0.0079037	-0.0079037	0.15788150	0.15788150	0.15788150
48	0.09000000	0.0177730	0.0177730	0.18650983	0.18650983	0.18650983
49	0.15000000	0.0872730	0.0872730	0.29764475	0.29764475	0.29764475
50	0.10000000	0.0505886	0.1090115	0.29764475	0.29764475	0.29764475
51	0.10000000	0.15870833	0.04129167	0.30955378	0.30955378	0.30955378
52	0.05000000	0.0706676	0.00695274	0.32854109	0.32854109	0.32854109
53	0.10000000	0.12980528	0.04015172	0.33954799	0.33954799	0.33954799
54	0.10000000	0.151161	0.0315161	0.34062335	0.34062335	0.34062335
55	0.18000000	0.1708584	-0.0510356	0.12731087	0.12731087	0.12731087
56	0.10000000	0.1292723	0.0317277	0.12731087	0.12731087	0.12731087
57	0.10000000	0.1268685	0.0301115	0.02207149	0.02207149	0.02207149
58	0.10000000	0.11361803	0.0301115	0.02207149	0.02207149	0.02207149
59	0.11000000	0.11095454	-0.00261808	0.00594660	0.00594660	0.00594660
60	0.10000000	0.10637823	0.00362177	0.00284466	0.00284466	0.00284466
61	0.11000000	0.1019860	0.00140134	0.00185187	0.00185187	0.00185187
62	0.10000000	0.1226303	-0.02263203	-0.01405379	-0.01405379	-0.01405379
63	0.10000000	0.11022370	-0.0122270	0.001453415	0.001453415	0.001453415
64	0.15000000	0.1405276	0.00151224	0.00271428	0.00271428	0.00271428
65	0.10000000	0.1713037	0.01130037	0.0321794	0.0321794	0.0321794
66	0.14000000	0.14589059	0.02511097	0.06251180	0.06251180	0.06251180
67	0.14000000	0.1258903	0.05741097	0.33982511	0.33982511	0.33982511
68	0.10000000	0.05511895	0.07483105	0.31255969	0.31255969	0.31255969
69	0.10000000	0.08318284	0.0148716	0.46801107	0.46801107	0.46801107
70	0.10000000	0.01830504	0.02060395	0.1684362	0.1684362	0.1684362
71	0.14000000	0.19955378	0.1304622	-0.0947362	-0.0947362	-0.0947362
72	0.10000000	0.14672868	0.0327134	0.15124795	0.15124795	0.15124795
73	0.10000000	0.1478826	0.01221174	0.1855214	0.1855214	0.1855214
74	0.10000000	0.1092253	-0.0219253	0.23227413	0.23227413	0.23227413
75	0.17000000	0.1825350	0.0219253	0.29207576	0.29207576	0.29207576
76	0.14000000	0.17507294	0.01498702	0.20922585	0.20922585	0.20922585
77	0.07000000	0.06983629	0.00516371	-0.0327825	-0.0327825	-0.0327825
78	0.09000000	0.08258067	0.00749333	0.04691178	0.04691178	0.04691178
79	0.09000000	0.08269285	0.00730715	-0.02505791	-0.02505791	-0.02505791
80	0.10000000	0.05155512	0.0044598	-0.02511335	-0.02511335	-0.02511335
81	0.12000000	0.11509207	0.00490793	0.0783116	0.0783116	0.0783116
82	0.10000000	0.11735610	-0.05735610	0.20888247	0.20888247	0.20888247
83	0.10000000	0.15058334	0.00538833	0.1767248	0.1767248	0.1767248
84	0.10000000	0.12430247	-0.01508753	0.0568789	0.0568789	0.0568789
85	0.14000000	0.12430247	0.01508753	0.0168754	0.0168754	0.0168754
86	0.10000000	0.0430123	0.0179368	0.06423107	0.06423107	0.06423107
87	0.10000000	0.0482123	0.0179368	0.36823107	0.36823107	0.36823107
88	0.10000000	0.0482123	0.0380308	0.34175672	0.34175672	0.34175672
89	0.10000000	0.0450844	0.1049456	0.23520745	0.23520745	0.23520745
90	0.10000000	0.1112009	0.0888991	0.25087877	0.25087877	0.25087877
91	0.10000000	0.1690165	-0.031560195	0.25087877	0.25087877	0.25087877
92	0.10000000	0.0797057	-0.02570573	-0.02837008	-0.02837008	-0.02837008
93	0.10000000	0.0435486	-0.00354946	0.18778155	0.18778155	0.18778155
94	0.10000000	0.05168155	-0.00168155	-0.06448582	-0.06448582	-0.06448582

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95	0.10000000	0.04769755	0.0230345	0.06030898	0.06030898	0.06030898
96	0.10000000	0.0488737	0.02113723	-0.0590857	-0.0590857	-0.0590857
97	0.10000000	0.0415381	0.00318619	-0.0615179	-0.0615179	-0.0615179
98	0.10000000	0.07280677	0.00110823	-0.0466895	-0.0466895	-0.0466895
99	0.10000000	0.07651374	-0.0455373	-0.03108270	-0.03108270	-0.03108270
100	0.10000000	0.07361355	-0.0455373	-0.03108270	-0.03108270	-0.03108270
101	0.10000000	0.0574374	-0.04740874	-0.01259878	-0.01259878	-0.01259878
102	0.10000000	0.08222424	-0.04222424	0.0259203	0.0259203	0.0259203
103	0.10000000	0.02845802	-0.00448802	-0.0794821	-0.0794821	-0.0794821
104	0.10000000	0.07818043	-0.01473141	-0.07909397	-0.07909397	-0.07909397
105	0.10000000	0.01813774	0.00181048	-0.09075841	-0.09075841	-0.09075841
106	0.10000000	0.01813774	0.01192266	-0.08906665	-0.08906665	-0.08906665
107	0.10000000	0.01967237	0.01032663	-0.08804773	-0.08804773	-0.08804773
108	0.10000000	0.05080694	0.01030306	-0.05633951	-0.05633951	-0.05633951
109	0.10000000	0.05133153	0.00866807	-0.0550444	-0.0550444	-0.0550444

F



1:31 TUESDAY, APRIL 26, 1983 10

STATISTICAL ANALYSIS SYSTEM  
GENERAL LINEAR MODELS PROCEDURE

DEPENDENT VARIABLE: TC

OBSERVATION	OBSERVED VALUE	PREDICTED VALUE	RESIDUAL	LOWER 95% CL INDIVIDUAL	UPPER 95% CL INDIVIDUAL
110	0.0300000	0.04547565	-0.01547565	-0.06256640	0.15351771
111	0.0300000	0.03708855	-0.00708855	-0.07691722	0.12095431
112	0.2100000	0.21743384	-0.00743384	0.11002433	0.32843355
113	0.2100000	0.24365273	-0.03365273	0.13933379	0.35871697
114	0.2000000	0.24070220	-0.04070220	0.13802234	0.36060607
115	0.4000000	0.05389078	-0.04610922	-0.05465124	0.16233279
116	0.0300000	0.04297618	-0.03297618	-0.02198962	0.19194199
117	0.2500000	0.16832520	-0.05832520	0.00159396	0.21505643
118	0.2600000	0.15617484	-0.09382516	0.04870781	0.26364186
119	0.1700000	0.1197783	-0.0497783	0.10286219	0.32109348
120	0.2100000	0.27281317	-0.06281317	0.16396756	0.38165878
121	0.2200000	0.26639732	-0.05639732	0.14866116	0.38413347
122	0.2600000	0.0703189	-0.0103189	-0.03572922	0.17759299
123	0.1000000	0.10129785	-0.00129785	-0.00050716	0.20850286
124	0.1300000	0.07392800	0.05607192	-0.03297619	0.18063235

SUM OF RESIDUALS

SUM OF SQUARED RESIDUALS - FRON SS

PRESS STATISTIC

FIRST ORDER AUTOCORRELATION

DURBIN-WATSON

0.0000000  
0.37531079  
-0.0000000  
0.38659531  
0.19180022  
1.5912915

1.5912915



DF	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
1	469.80730206	469.80730206	11.73	0.0009
90	3605.93182838	40.06590920		
91	4075.73913043			

B VALUE	STD ERROR	TYPE II SS	F	PROB>F
10.46351725				
-1.70281733	0.49727392	469.80730206	11.73	0.0009

THE ABOVE MODEL IS THE BEST 1 VARIABLE MODEL FOUND.

STEP 2 VARIABLE FD13 ENTERED

R SQUARE = 0.41084899

C(P) = 117.48466478

OF	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
2	1674.51331029	837.25665515	31.03	0.0001
89	2401.22582014	26.980065539		
91	4075.73913043			

B VALUE	STD ERROR	TYPE II SS	F	PROB>F
4.56863201				
0.00445615	0.00096617	1204.70600823	44.65	0.0001
-3.35785552	0.47734906	1335.04178482	49.48	0.0001

THE ABOVE MODEL IS THE BEST 2 VARIABLE MODEL FOUND.

STEP 3 VARIABLE S04 ENTERED

R SQUARE = 0.54071524

C(P) = 74.63049007

OF	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
3	2203.81426853	734.60475618	34.53	0.0001
88	1871.92486191	21.27187343		
91	4075.73913043			

B VALUE	STD ERROR	TYPE II SS	F	PROB>F
1.05288335				
0.00574940	0.00086952	930.02005775	43.72	0.0001
-4.15687270	0.45311227	1790.30714030	84.16	0.0001
4.20223534	0.82242627	529.30095824	24.88	0.0001

THE ABOVE MODEL IS THE BEST 3 VARIABLE MODEL FOUND.

STEP 4 VARIABLE F3F4 ENTERED

R SQUARE = 0.60025803

C(P) = 56.06525055

OF	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
4	2446.49512471	611.62378118	32.66	0.0001
87	1629.24400572	18.72694239		
91	4075.73913043			

B VALUE	STD ERROR	TYPE II SS	F	PROB>F
1.45057257				
0.00572501	0.00088297	1165.24257429	62.22	0.0001
-3.9052452	0.42843024	1604.61901260	85.70	0.0001
3.69571311	0.80799108	396.08063789	21.15	0.0001
0.00196316	0.00054559	242.88085618	12.66	0.0005

STEP 4 S04 REPLACED BY FD44

R SQUARE = 0.62916355

C(P) = 46.08169076

OF	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
4	2564.30648482	641.07662120	36.90	0.0001
87	1511.43264562	17.37278903		
91	4075.73913043			

B VALUE	STD ERROR	TYPE II SS	F	PROB>F
2.89106426				
0.00112361	0.00084085	1246.91713731	71.77	0.0001
-2.93702640	0.38793960	1995.76537649	57.32	0.0001
5.07527003	0.93316405	513.89199799	29.58	0.0001
0.00558354	0.00078030	889.54305714	51.20	0.0001



MAXIMUM R-SQUARE IMPROVEMENT FOR DEPENDENT VARIABLE GC

STEP 5 VARIABLE S04 ENTERED R SQUARE = 0.6982662 CIP1 = 23.98650854  
OF SUM OF SQUARES MEAN SQUARE F PROB>F  
REGRESSION 5 2848.64255803 569.72821161 39.93 0.0001  
ERROR 86 1227.09657240  
TOTAL 91 4075.73913043

B VALUE STD ERROR TYPE II SS F PROB>F  
INTERCEPT 0.42689468 0.00077680 983.91883040 68.96 0.0001  
FO13 0.00845058 0.00010736 0.0001 0.0001  
ZNI 3.58662886 0.37433960 1268.0165071 88.87 0.0001  
S04 3.16074705 0.70804997 284.73913043 18.81 0.0001  
FO44 4.85429891 0.85429891 402.1474332 18.18 0.0001  
F3F4 0.00486719 0.00072514 642.8322819 45.05 0.0001

THE ABOVE MODEL IS THE BEST 5 VARIABLE MODEL FOUND.

STEP 6 VARIABLE F354 ENTERED R SQUARE = 0.71296296 CIP1 = 21.13055299  
OF SUM OF SQUARES MEAN SQUARE F PROB>F  
REGRESSION 6 2905.85103368 484.30850561 35.19 0.0001  
ERROR 85 1163.88806672  
TOTAL 91 4075.73913043

B VALUE STD ERROR TYPE II SS F PROB>F  
INTERCEPT -0.58381021 0.00107326 762.71698318 55.42 0.0001  
FO13 0.00798960 0.37433960 1268.0165071 88.87 0.0001  
ZNI 3.58662886 0.37433960 1268.0165071 88.87 0.0001  
S04 3.16074705 0.70804997 284.73913043 18.81 0.0001  
FO44 4.85429891 0.85429891 402.1474332 18.18 0.0001  
F3F4 0.00486719 0.00072514 642.8322819 45.05 0.0001  
F354 0.00191684 0.00094020 57.20847565 4.16 0.0446

STEP 6 S04 REPLACED BY S044 R SQUARE = 0.71688289 CIP1 = 19.78466292

OF SUM OF SQUARES MEAN SQUARE F PROB>F  
REGRESSION 6 2921.82766266 486.97127711 35.87 0.0001  
ERROR 85 1153.91246778  
TOTAL 91 4075.73913043

B VALUE STD ERROR TYPE II SS F PROB>F  
INTERCEPT 0.87241270 0.00112605 787.85520939 58.04 0.0001  
FO13 0.00857833 0.36340816 1236.57904247 91.09 0.0001  
ZNI 3.46839724 0.83169360 276.43580269 30.86 0.0001  
S04 2.78026564 0.61607248 334.58116121 39.38 0.0001  
FO44 4.85429891 0.85429891 402.1474332 18.18 0.0001  
F3F4 0.00486719 0.00072514 642.8322819 45.05 0.0001  
F354 0.00333486 0.00118113 108.22186880 7.97 0.0059

THE ABOVE MODEL IS THE BEST 6 VARIABLE MODEL FOUND.

STEP 7 VARIABLE ZN11 ENTERED R SQUARE = 0.74776331 CIP1 = 11.11900073  
OF SUM OF SQUARES MEAN SQUARE F PROB>F  
REGRESSION 7 3047.68819681 435.38402812 35.57 0.0001  
ERROR 84 1028.05093362  
TOTAL 91 4075.73913043

B VALUE STD ERROR TYPE II SS F PROB>F  
INTERCEPT 0.24801903 0.00128459 875.00910749 71.50 0.0001  
FO13 0.01086181 0.47507160 317.89655963 22.35 0.0001  
ZNI 3.46839724 0.83169360 276.43580269 30.86 0.0001  
S04 2.78026564 0.61607248 334.58116121 39.38 0.0001  
FO44 4.85429891 0.85429891 402.1474332 18.18 0.0001  
F3F4 0.00486719 0.00072514 642.8322819 45.05 0.0001  
F354 0.00367575 0.00133811 220.18896207 17.99 0.0001

THE ABOVE MODEL IS THE BEST 7 VARIABLE MODEL FOUND.



STEP 8 VARIABLE 2154 ENTERED R SQUARE = 0.75907506 C(P) = 9.21208119

OF	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
REGRESSION	3093.79194290	386.72399286	32.69	0.0001
ERROR	981.94718754	11.83068901		
TOTAL	4075.73913043			

B VALUE	STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	0.32714122	896.66460267	75.79	0.0001
F013	0.00126542	238.4155019	20.18	0.0001
ZN1	0.86430076	278.05229552	23.61	0.0001
F044	0.13283578	371.56979320	31.72	0.0001
ZN11	0.62184352	411.9377494	34.62	0.0001
S044	0.00069381	186.86361200	15.79	0.0001
F354	0.00133028	46.10374608	3.90	0.0517
Z154	0.51052038			

STEP 8 ZN1 REPLACED BY F0133 R SQUARE = 0.75909912 C(P) = 9.20377158

DE	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
REGRESSION	3093.89000067	386.73625008	32.69	0.0001
ERROR	981.84912977	11.82950759		
TOTAL	4075.73913043			

B VALUE	STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	0.35480349	1082.62288751	91.52	0.0001
F013	0.01263347	59.51469788	5.03	0.0276
F044	0.00000190	195.31191176	16.51	0.0001
ZN1	3.28025633	636.19735356	54.77	0.0001
S044	0.37330450	323.57574630	27.35	0.0001
F354	0.00376864	46.72281493	3.95	0.0502
Z154	0.00335562	353.20193184	29.86	0.0001
TOTAL	-2.02035923			

THE ABOVE MODEL IS THE BEST 8 VARIABLE MODEL FOUND.

STEP 9 VARIABLE ZN1 ENTERED R SQUARE = 0.76888212 C(P) = 7.82486077

OF	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
REGRESSION	3133.76296032	348.19588450	30.31	0.0001
ERROR	941.97612892	11.48751427		
TOTAL	4075.73913043			

B VALUE	STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	0.10386273	905.74227659	78.85	0.0001
F013	0.01197457	338.87107985	29.47	0.0001
F044	0.00000095	228.30399520	19.18	0.0001
ZN1	0.80718171	298.74537798	26.09	0.0001
S044	0.18109432	132.74900691	11.62	0.0001
F354	0.00710100	47.26885709	4.13	0.0458
Z154	0.00337726	70.44897937	6.13	0.0153
TOTAL	-0.52817274			

THE ABOVE MODEL IS THE BEST 9 VARIABLE MODEL FOUND.

F



STEP 10	VARIABLE F311 ENTERED	R SQUARE = 0.77346994	C(P) = 8.24029275	MEAN SQUARE	F	PROB>F
	DF	SUM OF SQUARES				
REGRESSION	10	3152.46171295		315.24617130	27.66	0.0001
ERROR	91	4073.73913043				
TOTAL						
	B VALUE	STD ERROR	TYPE II SS	F	PROB>F	
INTERCEPT	-1.29322626	0.00339724	251.92278396	22.10	0.0001	
FD13	0.015971119	1.15963247	22.33350671	2.38	0.0397	
ZN1	-0.00000326	0.00000015	22.83253199	19.90	0.0001	
FD14	3.59243361	0.80530387	73.46253165	6.44	0.0130	
ZN11	0.56926887	0.22423739	132.8213866	19.90	0.0009	
SD14	2.52997166	0.73283684	340.8456674	1.64	0.2039	
F311	0.00395979	0.00072413	18.69875243	4.52	0.0365	
F314	0.00120455	0.00094050	51.54604016	5.87	0.0176	
Z134	-0.00353455	0.00166311	66.93303756			
Z134	-1.27632695	0.52670311				

THE ABOVE MODEL IS THE BEST 10 VARIABLE MODEL FOUND.



## GENERAL LINEAR MODELS PROCEDURE

DEPENDENT VARIABLE: GC

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE	PR > F	R-SQUARE	C.V.	
MODEL	10	3152.46171295	315.24617130	27.66	0.0001	0.773470	29.9814	
ERROR	81	923.27741748	11.39848664		ROOT MSE		GC MEAN	
CORRECTED TOTAL	91	4075.73913043			3.37616449		11.26086957	
SOURCE	DF	TYPE I SS	F-VALUE	PR > F	DF	TYPE III SS	F-VALUE	PR > F
FD13	1	339.47152547	29.78	0.0001	1	251.92278396	22.10	0.0001
ZN1	1	1335.04178482	117.12	0.0001	1	51.19000791	4.38	0.0369
FD133	1	1.44132137	0.13	0.7231	1	49.33508614	4.30	0.0398
FD44	1	0.40204396	0.04	0.8515	1	226.832253199	19.90	0.0001
ZN14	1	591.91692441	51.93	0.0001	1	135.85133866	16.44	0.0130
SU44	1	369.92964389	32.45	0.0001	1	340.68464674	30.90	0.0001
F3F4	1	328.44494979	28.81	0.0001	1	18.54604016	1.64	0.2039
F3Z1	1	16.2234213	1.46	0.2307	1	66.93309756	5.87	0.0176
F3S4	1	102.25807655	8.97	0.0036	1			
Z1S4	1	66.93309756	5.87	0.0176	1			

PARAMETER	ESTIMATE	T FOR H0: PARAMETER=0	PR >  T	STD ERROR OF ESTIMATE
INTERCEPT	-1.29322626	-0.94	0.3509	1.37842287
FD13	0.01597115	4.70	0.0001	0.00337374
FD133	-2.46061319	-2.12	0.0393	1.15965237
FD44	3.592243361	4.46	0.0001	0.00000156
ZN11	0.569226887	2.54	0.0130	0.80533367
ZN14	2.52997166	3.45	0.0009	0.22423739
SU44	0.00395979	5.47	0.0001	0.73283684
F3F4	0.00120459	1.28	0.2039	0.00072413
F3Z1	-0.00153455	-1.13	0.2565	0.00094050
F3S4	-1.27632695	-2.42	0.0176	0.00166213
Z1S4				0.52670213

OBSERVATION	OBSERVED VALUE	PREDICTED VALUE	RESIDUAL	LOWER 90% CL INDIVIDUAL	UPPER 90% CL INDIVIDUAL
1	10.00000000	10.34419978	-0.34419978	6.2591278	16.0628677
2	12.00000000	11.37258257	0.62741743	5.2638970	17.08853587
3	18.00000000	14.23482761	3.76517239	8.2630361	20.30089444
4	22.00000000	19.44827573	2.55172427	13.5043461	25.45086288
5	6.00000000	5.69883332	0.30116668	-0.05331564	11.25485658
6	9.00000000	6.81189379	2.18810621	1.37744319	12.6223327
7	10.00000000	7.14984820	2.85015180	2.04703379	13.60102728
8	10.00000000	7.82404053	2.17595947	2.7723983	14.32334414
9	3.00000000	8.54774199	-5.54774199	9.809330421	21.47469299
10	14.00000000	15.64209860	-1.64209860		
11					
12					



## GENERAL LINEAR MODELS PROCEDURE

DEPENDENT VARIABLE: GC

OBSERVATION

OBSERVED  
VALUEPREDICTED  
VALUE

RESIDUAL

LOWER 90% CL  
INDIVIDUALUPPER 90% CL  
INDIVIDUAL

13 *	6.00000000	1.68752835	-1.7449988	-4.13754838	7.51260509
14 *	10.00000000	1.74446988	-1.7449988	-4.13754838	13.0733650
15 *	10.00000000	1.74446988	-1.7449988	-4.13754838	19.0733650
16 *	15.00000000	1.74446988	-1.7449988	-4.13754838	17.4249290
17 *	10.00000000	1.74446988	-1.7449988	-4.13754838	17.4249290
18 *	10.00000000	1.74446988	-1.7449988	-4.13754838	22.1856655
19 *	10.00000000	1.74446988	-1.7449988	-4.13754838	17.4249290
20 *	10.00000000	1.74446988	-1.7449988	-4.13754838	17.4249290
21 *	10.00000000	1.74446988	-1.7449988	-4.13754838	17.4249290
22 *	10.00000000	1.74446988	-1.7449988	-4.13754838	17.4249290
23 *	10.00000000	1.74446988	-1.7449988	-4.13754838	17.4249290
24 *	10.00000000	1.74446988	-1.7449988	-4.13754838	17.4249290
25 *	10.00000000	1.74446988	-1.7449988	-4.13754838	17.4249290
26 *	10.00000000	1.74446988	-1.7449988	-4.13754838	17.4249290
27 *	10.00000000	1.74446988	-1.7449988	-4.13754838	17.4249290
28 *	10.00000000	1.74446988	-1.7449988	-4.13754838	17.4249290
29 *	10.00000000	1.74446988	-1.7449988	-4.13754838	17.4249290
30 *	10.00000000	1.74446988	-1.7449988	-4.13754838	17.4249290
31 *	10.00000000	1.74446988	-1.7449988	-4.13754838	17.4249290
32 *	10.00000000	1.74446988	-1.7449988	-4.13754838	17.4249290
33 *	10.00000000	1.74446988	-1.7449988	-4.13754838	17.4249290
34 *	10.00000000	1.74446988	-1.7449988	-4.13754838	17.4249290
35 *	10.00000000	1.74446988	-1.7449988	-4.13754838	17.4249290
36 *	10.00000000	1.74446988	-1.7449988	-4.13754838	17.4249290
37 *	10.00000000	1.74446988	-1.7449988	-4.13754838	17.4249290
38 *	10.00000000	1.74446988	-1.7449988	-4.13754838	17.4249290
39 *	10.00000000	1.74446988	-1.7449988	-4.13754838	17.4249290
40 *	10.00000000	1.74446988	-1.7449988	-4.13754838	17.4249290
41 *	10.00000000	1.74446988	-1.7449988	-4.13754838	17.4249290
42 *	10.00000000	1.74446988	-1.7449988	-4.13754838	17.4249290
43 *	10.00000000	1.74446988	-1.7449988	-4.13754838	17.4249290
44 *	10.00000000	1.74446988	-1.7449988	-4.13754838	17.4249290
45 *	10.00000000	1.74446988	-1.7449988	-4.13754838	17.4249290
46 *	10.00000000	1.74446988	-1.7449988	-4.13754838	17.4249290
47 *	10.00000000	1.74446988	-1.7449988	-4.13754838	17.4249290
48 *	10.00000000	1.74446988	-1.7449988	-4.13754838	17.4249290
49 *	10.00000000	1.74446988	-1.7449988	-4.13754838	17.4249290
50 *	10.00000000	1.74446988	-1.7449988	-4.13754838	17.4249290
51 *	10.00000000	1.74446988	-1.7449988	-4.13754838	17.4249290
52 *	10.00000000	1.74446988	-1.7449988	-4.13754838	17.4249290
53 *	10.00000000	1.74446988	-1.7449988	-4.13754838	17.4249290
54 *	10.00000000	1.74446988	-1.7449988	-4.13754838	17.4249290
55 *	10.00000000	1.74446988	-1.7449988	-4.13754838	17.4249290
56 *	10.00000000	1.74446988	-1.7449988	-4.13754838	17.4249290
57 *	10.00000000	1.74446988	-1.7449988	-4.13754838	17.4249290
58 *	10.00000000	1.74446988	-1.7449988	-4.13754838	17.4249290
59 *	10.00000000	1.74446988	-1.7449988	-4.13754838	17.4249290
60 *	10.00000000	1.74446988	-1.7449988	-4.13754838	17.4249290
61 *	10.00000000	1.74446988	-1.7449988	-4.13754838	17.4249290
62 *	10.00000000	1.74446988	-1.7449988	-4.13754838	17.4249290
63 *	10.00000000	1.74446988	-1.7449988	-4.13754838	17.4249290



## GENERAL LINEAR MODELS PROCEDURE

DEPENDENT VARIABLE: GC

OBSERVATION	OBSERVED VALUE	PREDICTED VALUE	RESIDUAL	LOWER 90% CL INDIVIDUAL	UPPER 90% CL INDIVIDUAL
64	.	13.73151979	.	7.95933321	19.50369638
65	.	14.03736487	.	8.25364731	19.82108244
66	.	13.08207837	.	7.31463673	18.49440039
67	.	13.04454968	.	7.30463098	18.78944839
68	.	13.74035520	.	-3.01863702	8.79933742
69	.	3.00300176	.	-3.75260301	8.75806653
70	.	2.70449103	.	-3.06773339	8.47611548
71	.	6.65117673	.	0.95781718	12.34517943
72	.	1.70833298	.	0.55506444	2.95517251
73	.	8.09772780	.	0.98611382	13.2344168
74	.	9.37192508	.	2.3444168	16.43099793
75	.	11.70143508	.	3.59910551	19.8117695
76	.	13.59132709	.	7.40384717	21.1847494
77	.	12.8933312	2.89872389	7.28183790	18.50369638
78	15.00000000	12.8933312	-0.89733192	7.04783765	17.74083795
79	12.00000000	9.5389333540	-0.41066460	3.76849367	15.30883217
80	10.00000000	9.5389333540	-0.23800087	4.43733347	14.63883217
81	10.00000000	10.23800087	-0.23800087	4.43733347	15.30883217
82	10.00000000	10.19454045	-0.19454045	4.39631095	15.39213933
83	10.00000000	11.68476971	-1.68476971	5.79011008	17.57952396
84	8.00000000	11.22476529	-3.22476529	5.28226061	17.16952396
85	.	6.01974795	-4.37253177	1.9616260	13.23558850
86	7.00000000	11.19180104	-4.91801004	1.54271327	13.20233186
87	7.00000000	11.19180104	-4.91801004	1.54271327	13.20233186
88	11.00000000	11.19180104	-0.89711863	6.02083621	17.81521765
89	11.00000000	11.19180104	-0.89711863	6.02083621	17.81521765
90	11.00000000	11.19180104	-0.89711863	6.02083621	17.81521765
91	11.00000000	11.19180104	-0.89711863	6.02083621	17.81521765
92	11.00000000	11.19180104	-0.89711863	6.02083621	17.81521765
93	11.00000000	11.19180104	-0.89711863	6.02083621	17.81521765
94	11.00000000	11.19180104	-0.89711863	6.02083621	17.81521765
95	11.00000000	11.19180104	-0.89711863	6.02083621	17.81521765
96	11.00000000	11.19180104	-0.89711863	6.02083621	17.81521765
97	11.00000000	11.19180104	-0.89711863	6.02083621	17.81521765
98	11.00000000	11.19180104	-0.89711863	6.02083621	17.81521765
99	21.00000000	11.19180104	-0.89711863	6.02083621	17.81521765
100	7.00000000	11.19180104	-4.91801004	1.54271327	13.20233186
101	10.00000000	11.19180104	-0.89711863	6.02083621	17.81521765
102	10.00000000	11.19180104	-0.89711863	6.02083621	17.81521765
103	10.00000000	11.19180104	-0.89711863	6.02083621	17.81521765
104	10.00000000	11.19180104	-0.89711863	6.02083621	17.81521765
105	10.00000000	11.19180104	-0.89711863	6.02083621	17.81521765
106	10.00000000	11.19180104	-0.89711863	6.02083621	17.81521765
107	10.00000000	11.19180104	-0.89711863	6.02083621	17.81521765
108	10.00000000	11.19180104	-0.89711863	6.02083621	17.81521765
109	10.00000000	11.19180104	-0.89711863	6.02083621	17.81521765
110	10.00000000	11.19180104	-0.89711863	6.02083621	17.81521765
111	9.00000000	11.19180104	-2.19180104	1.54271327	13.20233186
112	10.00000000	11.19180104	-0.89711863	6.02083621	17.81521765
113	10.00000000	11.19180104	-0.89711863	6.02083621	17.81521765
114	9.00000000	11.19180104	-2.19180104	1.54271327	13.20233186



GENERAL LINEAR MODELS PROCEDURE

DEPENDENT VARIABLE: GC

OBSERVATION	UNOBSERVED VALUE	PREDICTED VALUE	RESIDUAL	LOWER 90% CL INDIVIDUAL	UPPER 90% CL INDIVIDUAL
115	11.00000000	10.59921094	0.40078906	4.82296645	16.37545544
116	13.00000000	10.13559030	2.86440970	4.22512195	16.04605864
117	16.00000000	20.76133955	-4.76133955	14.03890819	27.44417091
118	14.00000000	12.58513486	1.41465914	8.58480876	19.30587295
119	18.00000000	14.50135613	3.49804387	8.58482176	20.41909050
120	.	1.22875208	.	-4.67322229	7.13032644
121	.	9.79658133	.	3.36072268	16.33244468
122	.	11.18035544	.	4.59688254	17.56838834
123	8.00000000	11.17002221	-0.73377162	2.27104825	15.47570607
124	10.00000000	11.73214258	-1.74214258	5.10777304	17.40020811
125	7.00000000	9.05518245	-2.05518245	3.23517706	14.86278578
126	9.00000000	8.74287535	0.25712465	3.08174631	14.39200440
127	10.00000000	10.77287535	-0.77287535	4.95174631	16.59332331
128	15.00000000	9.92037218	5.07962782	4.22653109	15.64222331
129	15.00000000	9.54523418	5.45476582	3.88144832	15.26062439
130	19.00000000	11.66144525	7.33855475	5.91664451	17.27994374
131	.	19.79044263	.	2.30094151	17.27994374
132	.	14.85255977	.	7.29349896	12.41162057
133	.	.	.	.	.
134	.	.	.	.	.
135	.	.	.	.	.
136	.	.	.	.	.
137	.	.	.	.	.
138	.	.	.	.	.
139	.	.	.	.	.
140	.	.	.	.	.
141	.	.	.	.	.
142	.	.	.	.	.
143	.	.	.	.	.
144	.	.	.	.	.
145	.	.	.	.	.
146	.	.	.	.	.
147	.	.	.	.	.
148	.	.	.	.	.
149	.	.	.	.	.
150	.	.	.	.	.
151	.	.	.	.	.
152	.	.	.	.	.
153	.	.	.	.	.
154	.	.	.	.	.
155	.	.	.	.	.
156	1.00000000	9.30067690	.	3.02140787	15.57994593
157	1.00000000	19.21195840	.	11.30628707	27.11562974
158	1.00000000	15.42102644	.	11.10452048	11.33525576
159	1.00000000	5.48016644	.	-0.28063593	11.24966882
160	0.00000000	15.48473369	.	6.45593438	24.50355301
161	0.00000000	19.16716883	.	11.84013911	26.48032375
162	0.00000000	13.36136077	.	15.53352063	21.30100060
163	0.00000000	10.40230434	.	3.83387189	16.91931538
164	0.00000000	10.78846677	.	4.25329909	17.31271538
165	2.00000000	5.19135326	.	-0.38178194	11.03095849
166	1.00000000	1.50619153	-0.91390153	-3.35253369	7.76434913
167	1.00000000	1.84433611	-0.50629150	-3.35253369	7.76434913
168	0.00000000	1.96273759	-1.96273759	-3.86332460	7.81618090
169	0.00000000	1.75728047	-1.75728047	-4.08324676	7.60288553
170	0.00000000	2.29874183	-1.29874183	-3.47561676	8.07310044
171	1.00000000	2.19633022	-8.80306978	-1.54099328	9.93485373
172	2.00000000	2.91266551	-0.91266551	-2.84909362	9.64424464
173	2.00000000	3.29536341	-1.29536341	-2.4182078	9.03264759



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## GENERAL LINEAR MODELS PROCEDURE

DEPENDENT VARIABLE: GC

OBSERVATION	OBSERVED VALUE	PREDICTED VALUE	RESIDUAL	LOWER 90% CL INDIVIDUAL	UPPER 90% CL INDIVIDUAL
166 *	2.00000000	5.15484943	-3.15484943	-0.57200036	10.88169922
167 *	2.00000000	6.36327027	-4.36327027	0.53076341	12.1077713
168 *	13.00000000	5.07606561	-2.07606561	-0.55937193	10.80459144
169 *	23.00000000	17.47337983	-6.47337983	9.22151580	20.92661543
170 *	23.00000000	23.81815089	-0.81815089	11.50208123	23.45667843
171 *	20.00000000	16.81885840	-3.81885840	17.64836297	29.98793881
172 *	8.00000000	4.30394322	-3.8061678	10.90201489	22.73570190
173 *	2.00000000	4.60759277	-2.60759277	-1.10337777	10.06228088
174 *	19.00000000	8.50358991	-3.50255977	-0.21084773	10.31272284
175 *	26.00000000	29.32831559	-3.32831559	2.61178333	11.15592800
176 *	30.00000000	29.1808902	-0.8191098	20.00037531	11.15592800
177 *	10.00000000	16.30420283	-6.30420283	22.58635111	33.25251232
178 *	11.00000000	15.64787202	-4.64787202	10.34438712	22.25335363
179 *	18.00000000	16.94383044	-1.65616956	9.78039872	22.154422958
180 *	35.00000000	27.35283712	-8.64716288	10.7433130	33.08052864
181 *	20.00000000	26.62257896	-6.62257896	19.93886827	33.30628964
182 *	1.00000000	1.34414040	-0.34414040	-4.48547718	7.17375798
183 *					
184 *					
185 *					
186 *		4.58363200		-2.26823134	11.433549534
187 *		4.7912435		-1.32945410	10.92170230
188 *		5.48056717		-1.66697754	12.62811169
189 *					
190 *					
191 *		0.95421537		-4.89787336	6.81030410
192 *		1.4072232		-2.2780129	7.223865636
193 *		2.89710262		-2.0163882	7.75598235
194 *	2.00000000	7.4192008	-0.89710262	-2.0163882	13.74327034
195 *	5.00000000	10.42244652	-1.433922008	1.9693652	13.74327034
196 *	6.00000000	8.08796091	-2.43424652	4.50272038	13.74327034
197 *	7.00000000	12.94373860	-5.94373860	2.34090592	18.86120212
198 *					
199 *					
200 *					
201 *		3.30401560		-2.68579595	9.30182716
202 *		7.66325531		-1.98693846	13.33957215
203 *		9.95325556		1.20000565	12.71452556
204 *		7.91325541		2.26219433	13.60034017
205 *		8.84310045		3.16249433	14.522770970
206 *		10.38355949	1.61164051	4.65940928	16.11770970
207 *	12.00000000	11.9579223		5.91620191	17.39538256
208 *		14.25063261		8.46523196	20.03603325
209 *					

\* OBSERVATION WAS NOT USED IN THIS ANALYSIS



GENERAL LINEAR MODELS PROCEDURE

DEPENDENT VARIABLE: GC

SUM OF RESIDUALS  
SUM OF SQUARED RESIDUALS - ERROR SS  
PRESS STATISTIC  
FIRST ORDER AUTOCORRELATION  
DURBIN-WATSON D

-0.00000000  
923.27741748  
-0.00000000  
1375.47996823  
0.20625827  
1.58454162



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UNIVARIATE

VARIABLE=CL2

MOMENTS

MEAN 209  
STD DEV 55.2654  
SKEWNESS 50.6086  
KURTOSIS 116054  
USS 1172974  
CV 61.7366  
TIMEAN=0  
SGN RANK 15.7591  
NUM 10971.5

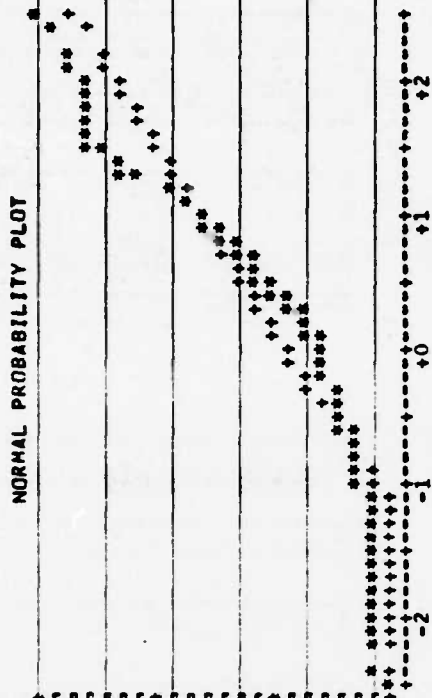
QUANTILES(DEF=4)

100% MAX 205.53  
75% Q3 81.115  
50% MED 38.143  
25% Q1 16.125  
0% MIN -0.08  
RANGE 205.61  
Q3-Q1 64.99  
MODE 1.26

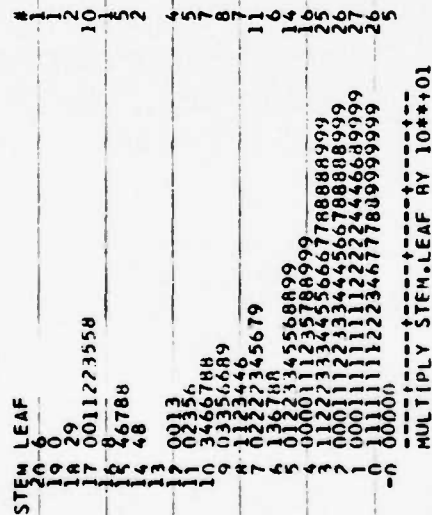
EXTREMES

LOWEST -0.08  
HIGHEST 177.23  
182.4  
189.44  
190.58  
205.53

NORMAL PROBABILITY PLOT



BOXPLOT



MULTIPLY STEM.LEAF BY 10\*\*101

FREQUENCY TABLE

VALUE	COUNT	PERCENTS	CUM	VALUE	COUNT	PERCENTS	CUM	VALUE	COUNT	PERCENTS	CUM
-0.08	1	0.5	0.5	8.75	1	0.5	2.0	10.92	1	0.5	18.0
0.14	1	0.5	1.0	8.99	1	0.5	2.5	10.99	1	0.5	19.0
0.36	1	0.5	1.4	9.13	1	0.5	3.0	10.99	1	0.5	20.0
0.64	1	0.5	1.9	9.15	1	0.5	3.5	10.99	1	0.5	21.0
0.67	1	0.5	2.4	9.12	1	0.5	4.0	10.99	1	0.5	22.0
0.95	1	0.5	2.9	10.136	1	0.5	4.5	10.99	1	0.5	23.0
1.24	1	0.5	3.4	10.63	1	0.5	5.0	10.99	1	0.5	24.0
1.37	1	0.5	3.9	10.86	1	0.5	5.5	10.99	1	0.5	25.0
1.54	1	0.5	4.4	10.92	1	0.5	6.0	10.99	1	0.5	26.0
			4.9				6.5				27.0
			5.4				7.0				28.0
			5.9				7.5				29.0
			6.4				8.0				30.0
			6.9				8.5				31.0
			7.4				9.0				32.0
			7.9				9.5				33.0
			8.4				10.0				34.0
			8.9				10.5				35.0
			9.4				11.0				36.0
			9.9				11.5				37.0
			10.4				12.0				38.0
			10.9				12.5				39.0
			11.4				13.0				40.0
			11.9				13.5				41.0
			12.4				14.0				42.0
			12.9				14.5				43.0
			13.4				15.0				44.0
			13.9				15.5				45.0
			14.4				16.0				46.0
			14.9				16.5				47.0
			15.4				17.0				48.0
			15.9				17.5				49.0
			16.4				18.0				50.0
			16.9				18.5				51.0
			17.4				19.0				52.0
			17.9				19.5				53.0
			18.4				20.0				54.0
			18.9				20.5				55.0
			19.4				21.0				56.0
			19.9				21.5				57.0
			20.4				22.0				58.0
			20.9				22.5				59.0
			21.4				23.0				60.0
			21.9				23.5				61.0
			22.4				24.0				62.0
			22.9				24.5				63.0
			23.4				25.0				64.0
			23.9				25.5				65.0
			24.4				26.0				66.0
			24.9				26.5				67.0
			25.4				27.0				68.0
			25.9				27.5				69.0
			26.4				28.0				70.0
			26.9				28.5				71.0
			27.4				29.0				72.0
			27.9				29.5				73.0
			28.4				30.0				74.0
			28.9				30.5				75.0
			29.4				31.0				76.0
			29.9				31.5				77.0
			30.4				32.0				78.0
			30.9				32.5				79.0
			31.4				33.0				80.0
			31.9				33.5				81.0
			32.4				34.0				82.0
			32.9				34.5				83.0
			33.4				35.0				84.0
			33.9				35.5				85.0
			34.4				36.0				86.0
			34.9				36.5				87.0
			35.4				37.0				88.0
			35.9				37.5				89.0
			36.4				38.0				90.0
			36.9				38.5				91.0
			37.4				39.0				92.0
			37.9				39.5				93.0
			38.4				40.0				94.0
			38.9				40.5				95.0
			39.4				41.0				96.0
			39.9				41.5				97.0
			40.4				42.0				98.0
			40.9				42.5				99.0
			41.4				43.0				100.0



## UNIVARIATE

**FREQUENCY TABLE (CONT.)**

VARIABLE=CL2

[illegible]







## UNIVARIATE

**VARIABLE** **NET**

### FREQUENCY TABLE

[illegible]







## UNIVARIATE

## VARIABLE=NETI2

**FREQUENCY TABLE (CONT.)**

PERCENTS	CUM	CELL	COUNT	VALUE
6.2	1.0	0	1	10
12.5	2.0	0	1	20
18.8	3.0	0	1	30
25.0	4.0	0	1	40
31.3	5.0	0	1	50
37.5	6.0	0	1	60
43.8	7.0	0	1	70
50.0	8.0	0	1	80
56.3	9.0	0	1	90
62.5	10.0	0	1	100
68.8	11.0	0	1	110
75.0	12.0	0	1	120
81.3	13.0	0	1	130
87.5	14.0	0	1	140
93.8	15.0	0	1	150
100.0	16.0	0	1	160
6.2	17.0	0	1	170
12.5	18.0	0	1	180
18.8	19.0	0	1	190
25.0	20.0	0	1	200
31.3	21.0	0	1	210
37.5	22.0	0	1	220
43.8	23.0	0	1	230
50.0	24.0	0	1	240
56.3	25.0	0	1	250
62.5	26.0	0	1	260
68.8	27.0	0	1	270
75.0	28.0	0	1	280
81.3	29.0	0	1	290
87.5	30.0	0	1	300
93.8	31.0	0	1	310
100.0	32.0	0	1	320
6.2	33.0	0	1	330
12.5	34.0	0	1	340
18.8	35.0	0	1	350
25.0	36.0	0	1	360
31.3	37.0	0	1	370
37.5	38.0	0	1	380
43.8	39.0	0	1	390
50.0	40.0	0	1	400
56.3	41.0	0	1	410
62.5	42.0	0	1	420
68.8	43.0	0	1	430
75.0	44.0	0	1	440
81.3	45.0	0	1	450
87.5	46.0	0	1	460
93.8	47.0	0	1	470
100.0	48.0	0	1	480
6.2	49.0	0	1	490
12.5	50.0	0	1	500
18.8	51.0	0	1	510
25.0	52.0	0	1	520
31.3	53.0	0	1	530
37.5	54.0	0	1	540
43.8	55.0	0	1	550
50.0	56.0	0	1	560
56.3	57.0	0	1	570
62.5	58.0	0	1	580
68.8	59.0	0	1	590
75.0	60.0	0	1	600
81.3	61.0	0	1	610
87.5	62.0	0	1	620
93.8	63.0	0	1	630
100.0	64.0	0	1	640
6.2	65.0	0	1	650
12.5	66.0	0	1	660
18.8	67.0	0	1	670
25.0	68.0	0	1	680
31.3	69.0	0	1	690
37.5	70.0	0	1	700
43.8	71.0	0	1	710
50.0	72.0	0	1	720
56.3	73.0	0	1	730
62.5	74.0	0	1	740
68.8	75.0	0	1	750
75.0	76.0	0	1	760
81.3	77.0	0	1	770
87.5	78.0	0	1	780
93.8	79.0	0	1	790
100.0	80.0	0	1	800
6.2	81.0	0	1	810
12.5	82.0	0	1	820
18.8	83.0	0	1	830
25.0	84.0	0	1	840
31.3	85.0	0	1	850
37.5	86.0	0	1	860
43.8	87.0	0	1	870
50.0	88.0	0	1	880
56.3	89.0	0	1	890
62.5	90.0	0	1	900
68.8	91.0	0	1	910
75.0	92.0	0	1	920
81.3	93.0	0	1	930
87.5	94.0	0	1	940
93.8	95.0	0	1	950
100.0	96.0	0	1	960
6.2	97.0	0	1	970
12.5	98.0	0	1	980
18.8	99.0	0	1	990
25.0	100.0	0	1	1000







ENGINE LDS-465

UNIVARIATE

### FREQUENCY TABLE

VARIABLE=NET13

[illegible]







## UNIVARIATE

VARIABLE=DET14

FREQUENCY TABLE (CONT.)

VALUE	COUNT	PERCENTS CELL	PERCENTS CUM	VALUE	COUNT	PERCENTS CELL	PERCENTS CUM	VALUE	COUNT	PERCENTS CELL	PERCENTS CUM
767.49	1	0.5	46.7	2614.98	1	0.5	64.5	3230.36	1	0.5	82.6
783.65	1	0.5	47.3	2629.71	1	0.5	65.2	3325.81	1	0.5	83.2
858.03	1	0.5	48.4	2664.88	1	0.5	66.3	3331.25	1	0.5	84.2
875.57	1	0.5	49.5	2688.57	1	0.5	67.4	3403.23	1	0.5	84.8
906.14	1	0.5	50.5	2707.97	1	0.5	68.5	3443.13	1	0.5	85.5
931.68	1	0.5	51.6	2744.95	1	0.5	69.6	3496.00	1	0.5	86.4
1046.58	1	0.5	52.7	2755.03	1	0.5	70.7	3553.60	1	0.5	87.2
1094.35	1	0.5	53.8	2778.26	1	0.5	71.8	3606.08	1	0.5	88.0
1113.63	1	0.5	54.9	2793.57	1	0.5	72.9	3689.23	1	0.5	89.1
1117.82	1	0.5	55.4	2858.88	1	0.5	74.0	3806.43	1	0.5	90.2
1118.66	1	0.5	56.5	2873.43	1	0.5	75.1	3889.23	1	0.5	91.3
1122.83	1	0.5	57.6	2887.41	1	0.5	76.2	3901.23	1	0.5	92.4
1128.80	1	0.5	58.7	2908.41	1	0.5	77.3	3935.59	1	0.5	93.5
1133.88	1	0.5	59.8	2922.57	1	0.5	78.4	4113.63	1	0.5	94.6
1138.95	1	0.5	60.9	2937.91	1	0.5	79.5	4136.30	1	0.5	95.7
1143.95	1	0.5	62.0	2950.42	1	0.5	80.6	4155.47	1	0.5	96.8
1149.03	1	0.5	63.1	2980.85	1	0.5	81.7	4178.08	1	0.5	97.9
1159.52	1	0.5	64.2	3004.85	1	0.5	82.8	4208.37	1	0.5	99.0
1182.41	1	0.5	65.3	3011.01	1	0.5	83.9	4231.69	1	0.5	100.0
1183.61	1	0.5	66.4	3025.53	1	0.5	85.0				
1183.61	1	0.5	67.5	3225.5	1	0.5	86.1				







## UNIVARIATE

## VAR1ABLE=NET15

## FREQUENCY TABLE

PERCENTS	CUM	CELL	COUNT	VALUE
75.3	1	000	1	164.316
75.3	2	000	1	167.094
75.3	3	000	1	169.184
75.3	4	000	1	170.274
75.3	5	000	1	171.364
75.3	6	000	1	172.454
75.3	7	000	1	173.544
75.3	8	000	1	174.634
75.3	9	000	1	175.724
75.3	10	000	1	176.814
75.3	11	000	1	177.904
75.3	12	000	1	178.994
75.3	13	000	1	180.084
75.3	14	000	1	181.174
75.3	15	000	1	182.264
75.3	16	000	1	183.354
75.3	17	000	1	184.444
75.3	18	000	1	185.534
75.3	19	000	1	186.624
75.3	20	000	1	187.714
75.3	21	000	1	188.804
75.3	22	000	1	189.894
75.3	23	000	1	190.984
75.3	24	000	1	192.074
75.3	25	000	1	193.164
75.3	26	000	1	194.254
75.3	27	000	1	195.344
75.3	28	000	1	196.434
75.3	29	000	1	197.524
75.3	30	000	1	198.614
75.3	31	000	1	199.704
75.3	32	000	1	200.794
75.3	33	000	1	201.884
75.3	34	000	1	202.974
75.3	35	000	1	204.064
75.3	36	000	1	205.154
75.3	37	000	1	206.244
75.3	38	000	1	207.334
75.3	39	000	1	208.424
75.3	40	000	1	209.514
75.3	41	000	1	210.604
75.3	42	000	1	211.694
75.3	43	000	1	212.784
75.3	44	000	1	213.874
75.3	45	000	1	214.964
75.3	46	000	1	216.054
75.3	47	000	1	217.144
75.3	48	000	1	218.234
75.3	49	000	1	219.324
75.3	50	000	1	220.414
75.3	51	000	1	221.504
75.3	52	000	1	222.594
75.3	53	000	1	223.684
75.3	54	000	1	224.774
75.3	55	000	1	225.864
75.3	56	000	1	226.954
75.3	57	000	1	228.044
75.3	58	000	1	229.134
75.3	59	000	1	230.224
75.3	60	000	1	231.314
75.3	61	000	1	232.404
75.3	62	000	1	233.494
75.3	63	000	1	234.584
75.3	64	000	1	235.674
75.3	65	000	1	236.764
75.3	66	000	1	237.854
75.3	67	000	1	238.944
75.3	68	000	1	240.034
75.3	69	000	1	241.124
75.3	70	000	1	242.214
75.3	71	000	1	243.304
75.3	72	000	1	244.394
75.3	73	000	1	245.484
75.3	74	000	1	246.574
75.3	75	000	1	247.664



UNIVARIATE

VARIABLE=FD1

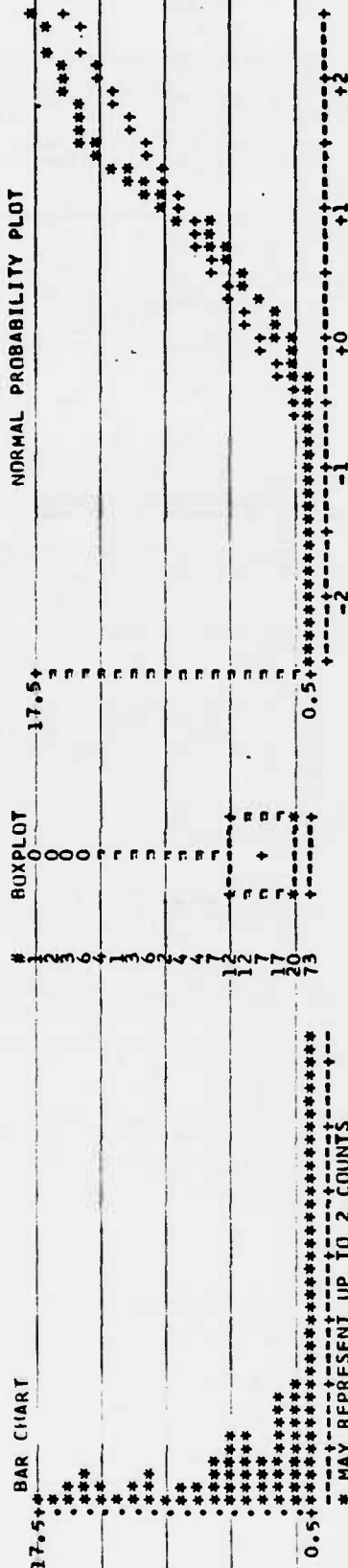
MOMENTS				QUANTILES(DEF=4)				EXTREMES	
								LOWEST	HIGHEST
N	184	SUM	184	100% MAX	17.5	99%	16.854	0	15.41
MEAN	3.80326	SUM	699.8	75% Q3	5.7725	95%	14.65	0	15.85
STD DEV	4.64019	VARIANCE	21.5297	50% MED	1.86	90%	11.41	0	16.42
SKEWNESS	1.31019	KURTOSIS	0.736134	25% Q1	0	10%	0	0	16.74
CV	1.21015	CVS	0.3939193	0% MIN	0	5%	0	0	17.5
TIMEAN=0	11.1185	STD MEAN	0.342066	RANGE	17.5	1%			
SGN RANK	4000.5	PRUR>=1	0.0001	Q3-Q1	5.7725				
NUM	126	PRUR>=3	0.0001	MODE	0				

MISSING VALUE COUNT 25  
COUNT/NOBS 11.96

BAR CHART

BOXPLOT

NORMAL PROBABILITY PLOT



FREQUENCY TABLE

VALUE	COUNT	PERCENTS	CELL	CUM	VALUE	COUNT	PERCENTS	CELL	CUM	VALUE	COUNT	PERCENTS	CELL	CUM
0.07	58	31.5	0.5	31.5	1.51	1	0.5	0.5	32.0	2.15	1	0.5	0.5	32.5
0.34	1	0.5	0.5	32.5	1.53	1	0.5	0.5	33.0	2.16	1	0.5	0.5	33.5
0.42	1	0.5	0.5	33.0	1.68	1	0.5	0.5	33.5	2.17	1	0.5	0.5	34.0
0.65	1	0.5	0.5	33.5	1.77	1	0.5	0.5	34.0	2.18	1	0.5	0.5	34.5
0.66	1	0.5	0.5	34.0	1.93	1	0.5	0.5	34.5	2.19	1	0.5	0.5	35.0
0.67	1	0.5	0.5	34.5	2.01	1	0.5	0.5	35.0	2.20	1	0.5	0.5	35.5
0.69	1	0.5	0.5	35.0	2.04	1	0.5	0.5	35.5	2.21	1	0.5	0.5	36.0
0.81	1	0.5	0.5	35.5	2.07	1	0.5	0.5	36.0	2.22	1	0.5	0.5	36.5
0.87	1	0.5	0.5	36.0	2.1	1	0.5	0.5	36.5	2.23	1	0.5	0.5	37.0
0.88	1	0.5	0.5	36.5	2.1	1	0.5	0.5	37.0	2.24	1	0.5	0.5	37.5



UNIVARIATE

VARIABLE=FD1

FREQUENCY TABLE (CONT.)

VALUE	COUNT	PERCENTS CELL	CUM	VALUE	COUNT	PERCENTS CELL	CUM	VALUE	COUNT	PERCENTS CELL	CUM	VALUE	COUNT	PERCENTS CELL	CUM	VALUE	COUNT	PERCENTS CELL	CUM
3.29	1	0.5	60.3	4.99	1	0.5	70.7	7.49	1	0.5	82.2	13.27	1	0.5	91.8	13.83	1	0.5	92.3
3.35	1	0.5	61.4	5.06	1	0.5	71.2	7.52	1	0.5	83.2	13.91	1	0.5	92.8	14.28	1	0.5	93.3
3.44	1	0.5	62.4	5.31	1	0.5	72.3	8.11	1	0.5	84.2	14.56	1	0.5	94.3	14.66	1	0.5	94.8
3.57	1	0.5	63.5	5.42	1	0.5	73.4	8.41	1	0.5	85.3	14.81	1	0.5	95.3	14.81	1	0.5	95.8
3.82	1	0.5	64.0	5.64	1	0.5	74.5	8.51	1	0.5	86.3	14.81	1	0.5	95.8	14.81	1	0.5	96.3
3.84	1	0.5	64.5	5.71	1	0.5	75.0	8.51	1	0.5	87.3	14.81	1	0.5	96.3	14.81	1	0.5	96.8
3.84	1	0.5	65.0	5.72	1	0.5	75.5	8.51	1	0.5	88.3	14.81	1	0.5	96.8	14.81	1	0.5	97.3
4.03	1	0.5	65.5	5.85	1	0.5	76.0	9.06	1	0.5	89.3	14.81	1	0.5	97.3	14.81	1	0.5	97.8
4.11	1	0.5	66.0	6.13	1	0.5	76.5	10.07	1	0.5	90.3	14.81	1	0.5	97.8	14.81	1	0.5	98.3
4.24	1	0.5	66.5	6.37	1	0.5	77.0	10.35	1	0.5	91.3	14.81	1	0.5	98.3	14.81	1	0.5	98.8
4.25	1	0.5	67.0	6.57	1	0.5	77.5	11.00	1	0.5	92.3	14.81	1	0.5	98.8	14.81	1	0.5	99.3
4.37	1	0.5	67.5	6.72	1	0.5	78.0	11.00	1	0.5	93.3	14.81	1	0.5	99.3	14.81	1	0.5	99.8
4.84	1	0.5	68.0	6.96	1	0.5	78.5	11.71	1	0.5	94.3	14.81	1	0.5	99.8	14.81	1	0.5	100.0
4.91	1	0.5	69.0	7.29	1	0.5	79.0	12.42	1	0.5	95.3	14.81	1	0.5	100.0	14.81	1	0.5	100.0



## EXTREMES

## COMMENTS

# SEH

MISSING VALUE

# BOXPLOT

## NORMAL PROBABILITY PLOT



VALUE	COUNT	CUM	PERCENTS
0	84	84	45.7
0.09	1	85	0.5
0.1	1	86	0.5
0.14	1	87	0.5
0.14	1	88	0.5
0.14	1	89	0.5
0.14	1	90	0.5
0.14	1	91	0.5
0.14	1	92	0.5
0.14	1	93	0.5
0.14	1	94	0.5
0.14	1	95	0.5
0.14	1	96	0.5
0.14	1	97	0.5
0.14	1	98	0.5
0.14	1	99	0.5
0.14	1	100	0.5
0.14	1	101	0.5
0.14	1	102	0.5
0.14	1	103	0.5
0.14	1	104	0.5
0.14	1	105	0.5
0.14	1	106	0.5
0.14	1	107	0.5
0.14	1	108	0.5
0.14	1	109	0.5
0.14	1	110	0.5
0.14	1	111	0.5
0.14	1	112	0.5
0.14	1	113	0.5
0.14	1	114	0.5
0.14	1	115	0.5
0.14	1	116	0.5
0.14	1	117	0.5
0.14	1	118	0.5
0.14	1	119	0.5
0.14	1	120	0.5
0.14	1	121	0.5
0.14	1	122	0.5
0.14	1	123	0.5
0.14	1	124	0.5
0.14	1	125	0.5
0.14	1	126	0.5
0.14	1	127	0.5
0.14	1	128	0.5
0.14	1	129	0.5
0.14	1	130	0.5
0.14	1	131	0.5
0.14	1	132	0.5
0.14	1	133	0.5
0.14	1	134	0.5
0.14	1	135	0.5
0.14	1	136	0.5
0.14	1	137	0.5
0.14	1	138	0.5
0.14	1	139	0.5
0.14	1	140	0.5
0.14	1	141	0.5
0.14	1	142	0.5
0.14	1	143	0.5
0.14	1	144	0.5
0.14	1	145	0.5
0.14	1	146	0.5
0.14	1	147	0.5
0.14	1	148	0.5
0.14	1	149	0.5
0.14	1	150	0.5
0.14	1	151	0.5
0.14	1	152	0.5
0.14	1	153	0.5
0.14	1	154	0.5
0.14	1	155	0.5
0.14	1	156	0.5
0.14	1	157	0.5
0.14	1	158	0.5
0.14	1	159	0.5
0.14	1	160	0.5
0.14	1	161	0.5
0.14	1	162	0.5
0.14	1	163	0.5
0.14	1	164	0.5
0.14	1	165	0.5
0.14	1	166	0.5
0.14	1	167	0.5
0.14	1	168	0.5
0.14	1	169	0.5
0.14	1	170	0.5
0.14	1	171	0.5
0.14	1	172	0.5
0.14	1	173	0.5
0.14	1	174	0.5
0.14	1	175	0.5
0.14	1	176	0.5
0.14	1	177	0.5
0.14	1	178	0.5
0.14	1	179	0.5
0.14	1	180	0.5
0.14	1	181	0.5
0.14	1	182	0.5
0.14	1	183	0.5
0.14	1	184	0.5
0.14	1	185	0.5
0.14	1	186	0.5
0.14	1	187	0.5
0.14	1	188	0.5
0.14	1	189	0.5
0.14	1	190	0.5
0.14	1	191	0.5
0.14	1	192	0.5
0.14	1	193	0.5
0.14	1	194	0.5
0.14	1	195	0.5
0.14	1	196	0.



ENGINE LDS-465

17:06 WEDNESDAY, MAY 30, 1984 25

UNIVARIATE

VARIABLE=FD2

## FREQUENCY TABLE (CONT.)

VALUE	COUNT	PERCENTS CELL	CUM	VALUE	COUNT	PERCENTS CELL	CUM	VALUE	COUNT	PERCENTS CELL	CUM	VALUE	COUNT	PERCENTS CELL	CUM
2.91	1	0.5	79.3	3.64	1	0.5	85.9	8.86	1	0.5	90.8	11.34	1	0.5	96.3
3.08	1	0.5	80.4	3.66	1	0.5	86.4	11.55	1	0.5	91.8	12.79	1	0.5	97.3
3.12	1	0.5	81.0	3.68	1	0.5	87.0	12.79	1	0.5	92.3	31.42	1	0.5	97.8
3.19	1	0.5	81.5	3.69	1	0.5	87.5	43.66	1	0.5	92.8	70.46	1	0.5	98.3
3.35	1	0.5	82.1	3.76	1	0.5	88.0	75.78	1	0.5	93.3				
3.55	1	0.5	82.6	3.86	1	0.5	88.6								
3.62	1	0.5	83.2	3.96	1	0.5	89.1								
				4.19	1	0.5	90.2								



VARIABLE=FD13

MOMENTS

QUANTILES(DEF=4)

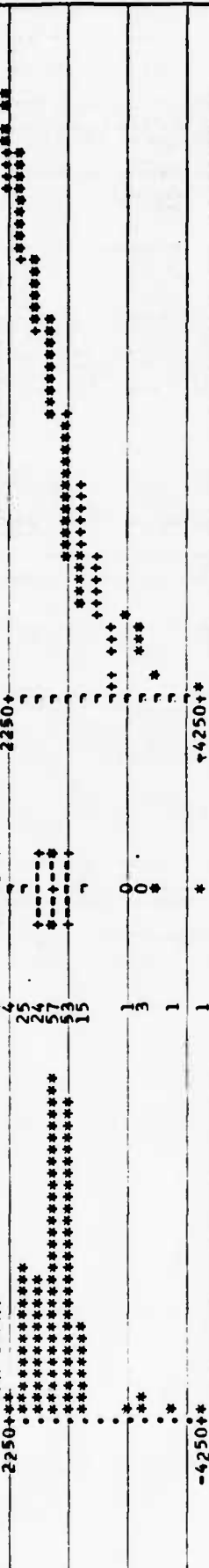
EXTREMES

N	184	SUM	184	100% MAX	2361.89	99%	2345.88	LOWEST	-4154.74	HIGHEST	2361.89
MEAN	628.439	SUM	115633	75% Q3	1130.11	95%	1717.37		-2405.31		2010.56
STD DEV	828.703	VARIANCE	686748	50% MED	603.425	90%	1595.68		-2293.37		2132.03
SKEWNESS	-1.95885	KURTOSIS	8.8547	25% Q1	274.622	10%	352.7098		-2064.38		2361.89
USS	198343171	CSS	125674970	0% MIN	-4154.74	5%	-122.748				
CV	131.867	STD MEAN	61.0001			1%	-3168.11				
TIMEAN=0	10.2866	PRUB>T=	0.0001	RANGE	6516.63						
SGN RANK	10.7315	PRUB>T=	0.0001	MODE	-4154.74						
NUM	184			MISSING VALUE							
				COUNT							
				% COUNT/NORS	11.96						

BAR CHART

BOXPLOT

NORMAL PROBABILITY PLOT



FREQUENCY TABLE

VALUE	COUNT	PERCENTS	CELL	CUM	VALUE	COUNT	PERCENTS	CELL	CUM	VALUE	COUNT	PERCENTS	CELL	CUM
-4154.74	1	0.5	0.5	9.2	138.76	1	0.5	0.5	17.9	251.57	1	0.5	0.5	26.6
-2405.31	1	0.5	0.5	9.3	124.31	1	0.5	0.5	18.0	251.61	1	0.5	0.5	27.1
-2293.37	1	0.5	0.5	10.9	164.07	1	0.5	0.5	19.0	251.63	1	0.5	0.5	28.6
-2064.38	1	0.5	0.5	11.4	183.68	1	0.5	0.5	20.1	251.67	1	0.5	0.5	29.9
-1662.09	1	0.5	0.5	12.2	198.47	1	0.5	0.5	21.3	251.70	1	0.5	0.5	30.4
-1317.22	1	0.5	0.5	13.0	226.42	1	0.5	0.5	22.8	251.73	1	0.5	0.5	31.9
-1158.42	1	0.5	0.5	13.6	236.07	1	0.5	0.5	23.3	251.76	1	0.5	0.5	32.4
-108.89	1	0.5	0.5	14.7	252.07	1	0.5	0.5	24.4	251.77	1	0.5	0.5	33.9
-7.19	1	0.5	0.5	15.8	262.61	1	0.5	0.5	25.5	251.78	1	0.5	0.5	34.4
1.91	1	0.5	0.5	16.8	280.66	1	0.5	0.5	26.6	251.79	1	0.5	0.5	35.9
4.64	1	0.5	0.5	17.4	280.84	1	0.5	0.5	27.1	251.80	1	0.5	0.5	36.4



UNIVARIATE

VARIABLE=FDI3

FREQUENCY TABLE (CONT.)

VALUE	COUNT	PERCENTS CELL	CUM PERCENTS	VALUE	COUNT	PERCENTS CELL	CUM PERCENTS	VALUE	COUNT	PERCENTS CELL	CUM PERCENTS	VALUE	COUNT	PERCENTS CELL	CUM PERCENTS
380.42	1	0.5	35.3	622.23	1	0.5	51.6	846.45	1	0.5	67.9	1449.05	1	0.5	84.2
381.43	1	0.5	36.8	668.97	1	0.5	52.2	888.64	1	0.5	69.9	1459.99	1	0.5	85.7
390.33	1	0.5	37.3	669.07	1	0.5	52.7	889.71	1	0.5	70.0	1461.20	1	0.5	86.2
401.65	1	0.5	38.8	670.33	1	0.5	53.2	890.75	1	0.5	70.5	1462.40	1	0.5	86.7
413.33	1	0.5	39.3	671.04	1	0.5	53.7	891.79	1	0.5	71.0	1463.60	1	0.5	87.2
422.05	1	0.5	40.8	671.84	1	0.5	54.2	892.83	1	0.5	71.5	1464.80	1	0.5	87.7
435.81	1	0.5	41.3	672.84	1	0.5	54.7	893.87	1	0.5	72.0	1466.00	1	0.5	88.2
445.91	1	0.5	42.8	673.84	1	0.5	55.2	894.91	1	0.5	72.5	1467.20	1	0.5	88.7
459.34	1	0.5	43.3	674.71	1	0.5	55.7	895.95	1	0.5	73.0	1468.40	1	0.5	89.2
471.64	1	0.5	44.8	675.71	1	0.5	56.2	896.99	1	0.5	73.5	1469.60	1	0.5	89.7
485.27	1	0.5	45.3	676.71	1	0.5	56.7	898.03	1	0.5	74.0	1470.80	1	0.5	90.2
497.57	1	0.5	46.8	677.71	1	0.5	57.2	899.07	1	0.5	74.5	1472.00	1	0.5	90.7
511.34	1	0.5	47.3	678.71	1	0.5	57.7	900.11	1	0.5	75.0	1473.20	1	0.5	91.2
523.07	1	0.5	48.8	679.71	1	0.5	58.2	901.15	1	0.5	75.5	1474.40	1	0.5	91.7
535.27	1	0.5	49.3	680.71	1	0.5	58.7	902.19	1	0.5	76.0	1475.60	1	0.5	92.2
547.57	1	0.5	50.8	681.71	1	0.5	59.2	903.23	1	0.5	76.5	1476.80	1	0.5	92.7
559.34	1	0.5	51.3	682.71	1	0.5	59.7	904.27	1	0.5	77.0	1478.00	1	0.5	93.2
571.64	1	0.5	52.8	683.71	1	0.5	60.2	905.31	1	0.5	77.5	1479.20	1	0.5	93.7
583.94	1	0.5	53.3	684.71	1	0.5	60.7	906.35	1	0.5	78.0	1480.40	1	0.5	94.2
595.27	1	0.5	54.8	685.71	1	0.5	61.2	907.39	1	0.5	78.5	1481.60	1	0.5	94.7
607.57	1	0.5	55.3	686.71	1	0.5	61.7	908.43	1	0.5	79.0	1482.80	1	0.5	95.2
619.87	1	0.5	56.8	687.71	1	0.5	62.2	909.47	1	0.5	79.5	1484.00	1	0.5	95.7
631.17	1	0.5	57.3	688.71	1	0.5	62.7	910.51	1	0.5	80.0	1485.20	1	0.5	96.2
643.47	1	0.5	58.8	689.71	1	0.5	63.2	911.55	1	0.5	80.5	1486.40	1	0.5	96.7
655.77	1	0.5	59.3	690.71	1	0.5	63.7	912.59	1	0.5	81.0	1487.60	1	0.5	97.2
667.07	1	0.5	60.8	691.71	1	0.5	64.2	913.63	1	0.5	81.5	1488.80	1	0.5	97.7
679.37	1	0.5	61.3	692.71	1	0.5	64.7	914.67	1	0.5	82.0	1490.00	1	0.5	98.2
691.67	1	0.5	62.8	693.71	1	0.5	65.2	915.71	1	0.5	82.5	1491.20	1	0.5	98.7
703.97	1	0.5	63.3	694.71	1	0.5	65.7	916.75	1	0.5	83.0	1492.40	1	0.5	99.2
715.27	1	0.5	64.8	695.71	1	0.5	66.2	917.79	1	0.5	83.5	1493.60	1	0.5	99.7
727.57	1	0.5	65.3	696.71	1	0.5	66.7	918.83	1	0.5	84.0	1494.80	1	0.5	100.0
739.87	1	0.5	66.8	697.71	1	0.5	67.2	919.87	1	0.5	84.5	1496.00	1	0.5	
751.17	1	0.5	67.3	698.71	1	0.5	67.7	920.91	1	0.5	85.0	1497.20	1	0.5	
763.47	1	0.5	68.8	699.71	1	0.5	68.2	921.95	1	0.5	85.5	1498.40	1	0.5	
775.77	1	0.5	69.3	700.71	1	0.5	68.7	922.99	1	0.5	86.0	1499.60	1	0.5	
787.07	1	0.5	70.8	701.71	1	0.5	69.2	924.03	1	0.5	86.5	1500.80	1	0.5	
799.37	1	0.5	71.3	702.71	1	0.5	69.7	925.07	1	0.5	87.0	1502.00	1	0.5	
811.67	1	0.5	72.8	703.71	1	0.5	70.2	926.11	1	0.5	87.5	1503.20	1	0.5	
823.97	1	0.5	73.3	704.71	1	0.5	70.7	927.15	1	0.5	88.0	1504.40	1	0.5	
835.27	1	0.5	74.8	705.71	1	0.5	71.2	928.19	1	0.5	88.5	1505.60	1	0.5	
847.57	1	0.5	75.3	706.71	1	0.5	71.7	929.23	1	0.5	89.0	1506.80	1	0.5	
859.87	1	0.5	76.8	707.71	1	0.5	72.2	930.27	1	0.5	89.5	1508.00	1	0.5	
871.17	1	0.5	77.3	708.71	1	0.5	72.7	931.31	1	0.5	90.0	1509.20	1	0.5	
883.47	1	0.5	78.8	709.71	1	0.5	73.2	932.35	1	0.5	90.5	1510.40	1	0.5	
895.77	1	0.5	79.3	710.71	1	0.5	73.7	933.39	1	0.5	91.0	1511.60	1	0.5	
907.07	1	0.5	80.8	711.71	1	0.5	74.2	934.43	1	0.5	91.5	1512.80	1	0.5	
919.37	1	0.5	81.3	712.71	1	0.5	74.7	935.47	1	0.5	92.0	1514.00	1	0.5	
931.67	1	0.5	82.8	713.71	1	0.5	75.2	936.51	1	0.5	92.5	1515.20	1	0.5	
943.97	1	0.5	83.3	714.71	1	0.5	75.7	937.55	1	0.5	93.0	1516.40	1	0.5	
955.27	1	0.5	84.8	715.71	1	0.5	76.2	938.59	1	0.5	93.5	1517.60	1	0.5	
967.57	1	0.5	85.3	716.71	1	0.5	76.7	939.63	1	0.5	94.0	1518.80	1	0.5	
979.87	1	0.5	86.8	717.71	1	0.5	77.2	940.67	1	0.5	94.5	1520.00	1	0.5	
991.17	1	0.5	87.3	718.71	1	0.5	77.7	941.71	1	0.5	95.0	1521.20	1	0.5	
1003.47	1	0.5	88.8	719.71	1	0.5	78.2	942.75	1	0.5	95.5	1522.40	1	0.5	
1015.77	1	0.5	89.3	720.71	1	0.5	78.7	943.79	1	0.5	96.0	1523.60	1	0.5	
1027.07	1	0.5	90.8	721.71	1	0.5	79.2	944.83	1	0.5	96.5	1524.80	1	0.5	
1039.37	1	0.5	91.3	722.71	1	0.5	79.7	945.87	1	0.5	97.0	1526.00	1	0.5	
1051.67	1	0.5	92.8	723.71	1	0.5	80.2	946.91	1	0.5	97.5	1527.20	1	0.5	
1063.97	1	0.5	93.3	724.71	1	0.5	80.7	947.95	1	0.5	98.0	1528.40	1	0.5	
1075.27	1	0.5	94.8	725.71	1	0.5	81.2	948.99	1	0.5	98.5	1529.60	1	0.5	
1087.57	1	0.5	95.3	726.71	1	0.5	81.7	949.03	1	0.5	99.0	1530.80	1	0.5	
1099.87	1	0.5	96.8	727.71	1	0.5	82.2	950.07	1	0.5	99.5	1532.00	1	0.5	
1111.17	1	0.5	97.3	728.71	1	0.5	82.7	951.11	1	0.5	100.0	1533.20	1	0.5	
1123.47	1	0.5	98.8	729.71	1	0.5	83.2	952.15	1	0.5		1534.40	1	0.5	
1135.77	1	0.5	99.3	730.71	1	0.5	83.7	953.19	1	0.5		1535.60	1	0.5	
1147.07	1	0.5	100.0	731.71	1	0.5	84.2	954.23	1	0.5		1536.80	1	0.5	
1159.37	1	0.5		732.71	1	0.5	84.7	955.27	1	0.5		1538.00	1	0.5	
1171.67	1	0.5		733.71	1	0.5	85.2	956.31	1	0.5		1539.20	1	0.5	
1183.97	1	0.5		734.71	1	0.5	85.7	957.35	1	0.5		1540.40	1	0.5	
1195.27	1	0.5		735.71	1	0.5	86.2	958.39	1	0.5		1541.60	1	0.5	
1207.57	1	0.5		736.71	1	0.5	86.7	959.43	1	0.5		1542.80	1	0.5	
1219.87	1	0.5		737.71	1	0.5	87.2	960.47	1	0.5		1544.00	1	0.5	
1231.17	1	0.5		738.71	1	0.5	87.7	961.51	1	0.5		1545.20	1	0.5	
1243.47	1	0.5		739.71	1	0.5	88.2	962.55	1	0.5		1546.40	1	0.5	
1255.77	1	0.5		740.71	1	0.5	88.7	963.59	1	0.5		1547.60	1	0.5	
1267.07	1	0.5		741.71	1	0.5	89.2	964.63	1	0.5		1548.80	1	0.5	
1279.37	1	0.5		742.71	1	0.5	89.7	965.67	1	0.5		1550.00	1	0.5	
1291.67	1	0.5		743.71	1	0.5	90.2	966.71	1	0.5		1551.20	1	0.5	
1303.97	1	0.5		744.71	1	0.5	90.7	967.75	1	0.5		1552.40	1	0.5	
1315.27	1	0.5		745.71	1	0.5	91.2	968.79	1	0.5		1553.60	1	0.5	
1327.57	1	0.5		746.71	1	0.5	91.7	969.83	1	0.5		1554.80	1	0.5	
1339.87	1	0.5		747.71	1	0.5	92.2	970.87	1	0.5		1556.00	1	0.5	
1351.17	1	0.5		748.71	1	0.5	92.7	971.91	1	0.5		1557.20	1	0.5	
1363.47	1	0.5		749.71	1	0.5	93.2	972.95	1	0.5		1558.40	1	0.5	
1375.77	1	0.5		750.71	1	0.5	93.7	973.99	1	0.5		1559.60	1	0.5	
1387.07	1	0.5		751.71	1	0.5	94.2	975.03	1	0.5		1560.80	1	0.5	
1399.37	1	0.5		752.71	1	0.5	94.7	976.07	1	0.5		1562.00	1	0.5	
1411.67	1	0.5		753.71	1	0.5	95.2	977.11	1	0.5		1563.20	1	0.5	



## UNIVARIATE

VARIABLE=FD4

## MOMENTS

N MEAN -0.475272 184 SUM HGT5 184  
 STD DEV 0.710342 502 03 1.16  
 SKEWNESS 0.238837 502 01 -0.47  
 KURTOSIS 135.902 925 01 -1.71  
 CV 149.46 0.00001 2.87  
 TMEAN=0 -9.07577 03-01 1.415  
 SGN RANK -5429.5 184 -0.49  
 NUM 184

## QUANTILES(DEF=4)

99% 0.747469  
 95% 0.405  
 90% -1.41  
 10% -1.52  
 1% -1.6675  
 1.16

## EXTREMES

LOWEST -1.71  
 -1.66  
 -1.64  
 -1.63  
 -1.6

MISSING VALUE  
 COUNT 25  
 % COUNT/NOBS 11.96

## NORMAL PROBABILITY PLOT

## BOXPLOT

STEM LEAF 1-1+  
 10 5925566  
 8 016  
 7 00112429  
 6 0013013788  
 5 024355432 223333444599  
 4 064355432 223333444599  
 3 9887655322988764432210  
 2 4310999987751  
 1 9984442009876540  
 0 7665387732  
 -1 98854431098764410  
 -2 776444210983322211  
 -3 98322200874420  
 -4 16430  
 -5  
 -6  
 -7  
 -8  
 -9  
 -10  
 -11  
 -12  
 -13  
 -14  
 -15

MULTIPLY STEM LEAF BY 10\*\*01

## FREQUENCY TABLE

VALUE	COUNT	PERCENTS	CUM	VALUE	COUNT	PERCENTS	CUM	VALUE	COUNT	PERCENTS	CUM
-1.71	1	0.5	0.5	-0.88	1	0.5	1.0	-0.88	1	0.5	1.0
-1.64	1	0.5	1.0	-0.85	1	0.5	1.5	-0.85	1	0.5	1.5
-1.63	1	0.5	1.5	-0.82	1	0.5	2.0	-0.82	1	0.5	2.0
-1.60	1	0.5	2.0	-0.79	1	0.5	2.5	-0.79	1	0.5	2.5
-1.58	1	0.5	2.5	-0.77	1	0.5	3.0	-0.77	1	0.5	3.0
-1.55	1	0.5	3.0	-0.74	1	0.5	3.5	-0.74	1	0.5	3.5
-1.52	1	0.5	3.5	-0.72	1	0.5	4.0	-0.72	1	0.5	4.0
-1.50	1	0.5	4.0	-0.69	1	0.5	4.5	-0.69	1	0.5	4.5
-1.47	1	0.5	4.5	-0.68	1	0.5	5.0	-0.68	1	0.5	5.0
-1.44	1	0.5	5.0	-0.67	1	0.5	5.5	-0.67	1	0.5	5.5
-1.42	1	0.5	5.5	-0.66	1	0.5	6.0	-0.66	1	0.5	6.0
-1.40	1	0.5	6.0	-0.64	1	0.5	6.5	-0.64	1	0.5	6.5



## UNIVARIATE

VARIABLE=FD4

FREQUENCY TABLE (CONT.)

VALUE	COUNT	PERCENTS CELL	CUM	VALUE	COUNT	PERCENTS CELL	CUM	VALUE	COUNT	PERCENTS CELL	CUM	VALUE	COUNT	PERCENTS CELL	CUM
-0.46	1	0.3	44.6	-0.28	2	1.1	59.8	0.05	3	1.6	71.8	0.35	1	0.5	89.1
-0.44	1	0.3	45.0	-0.27	1	0.5	60.3	0.07	2	1.0	72.8	0.4	1	0.5	90.3
-0.51	1	0.3	45.3	-0.26	1	0.5	60.8	0.08	2	1.1	73.9	0.42	1	0.5	90.8
-0.5	1	0.3	46.3	-0.23	1	0.5	62.5	0.09	2	1.1	75.0	0.44	1	0.5	91.3
-0.49	1	0.3	46.7	-0.22	1	0.5	63.0	0.1	2	1.6	76.6	0.5	1	0.5	91.8
-0.47	1	0.3	47.0	-0.2	1	0.5	64.1	0.13	2	1.2	77.8	0.55	1	0.5	92.3
-0.45	1	0.3	47.5	-0.16	1	0.5	64.6	0.14	2	1.2	78.9	0.6	1	0.5	92.8
-0.43	1	0.3	48.0	-0.14	1	0.5	65.2	0.15	2	1.2	80.4	0.65	1	0.5	93.3
-0.37	1	0.3	48.3	-0.13	1	0.5	65.7	0.15	2	1.2	82.0	0.7	1	0.5	93.8
-0.36	1	0.3	48.6	-0.12	1	0.5	66.3	0.15	2	1.2	83.5	0.85	1	0.5	94.3
-0.35	1	0.3	48.9	-0.105	1	0.5	66.8	0.2	2	1.0	84.5	0.9	1	0.5	94.8
-0.33	1	0.3	49.2	-0.093	1	0.5	67.3	0.25	1	0.5	85.0	1.1	1	0.5	95.3
-0.32	1	0.3	49.5	-0.08	1	0.5	67.8	0.3	1	0.5	85.5	1.1	1	0.5	95.8
-0.29	1	0.3	50.8	-0.04	1	0.5	69.0	0.37	1	0.5	86.0	1.1	1	0.5	96.3







VARIABLE=ZN1

FREQUENCY TABLE

VALUE	COUNT	PERCENTS	CELL	VALUE	COUNT	PERCENTS	CELL	VALUE	COUNT	PERCENTS	CELL	VALUE	COUNT	PERCENTS	CELL	VALUE	COUNT	PERCENTS	CELL
-9.39	1	0.5	0.5	-0.84	1	0.5	0.5	-0.18	1	0.5	0.5	0.83	1	0.5	0.5	0.83	1	0.5	0.5
-7.97	1	0.5	0.5	-0.83	1	0.5	0.5	-0.17	1	0.5	0.5	0.88	1	0.5	0.5	0.88	1	0.5	0.5
-6.16	1	0.5	0.5	-0.77	1	0.5	0.5	-0.16	1	0.5	0.5	0.9	1	0.5	0.5	0.9	1	0.5	0.5
-5.18	1	0.5	0.5	-0.76	1	0.5	0.5	-0.15	1	0.5	0.5	0.9	1	0.5	0.5	0.9	1	0.5	0.5
-4.07	1	0.5	0.5	-0.73	1	0.5	0.5	-0.14	1	0.5	0.5	0.9	1	0.5	0.5	0.9	1	0.5	0.5
-3.01	1	0.5	0.5	-0.69	1	0.5	0.5	-0.13	1	0.5	0.5	0.9	1	0.5	0.5	0.9	1	0.5	0.5
-2.87	1	0.5	0.5	-0.64	1	0.5	0.5	-0.12	1	0.5	0.5	0.9	1	0.5	0.5	0.9	1	0.5	0.5
-2.57	1	0.5	0.5	-0.61	1	0.5	0.5	-0.11	1	0.5	0.5	0.9	1	0.5	0.5	0.9	1	0.5	0.5
-2.25	1	0.5	0.5	-0.58	1	0.5	0.5	-0.1	1	0.5	0.5	0.9	1	0.5	0.5	0.9	1	0.5	0.5
-2.05	1	0.5	0.5	-0.57	1	0.5	0.5	-0.09	1	0.5	0.5	0.9	1	0.5	0.5	0.9	1	0.5	0.5
-2.02	1	0.5	0.5	-0.56	1	0.5	0.5	-0.08	1	0.5	0.5	0.9	1	0.5	0.5	0.9	1	0.5	0.5
-1.94	1	0.5	0.5	-0.54	1	0.5	0.5	-0.07	1	0.5	0.5	0.9	1	0.5	0.5	0.9	1	0.5	0.5
-1.79	1	0.5	0.5	-0.52	1	0.5	0.5	-0.06	1	0.5	0.5	0.9	1	0.5	0.5	0.9	1	0.5	0.5
-1.75	1	0.5	0.5	-0.51	1	0.5	0.5	-0.05	1	0.5	0.5	0.9	1	0.5	0.5	0.9	1	0.5	0.5
-1.71	1	0.5	0.5	-0.49	1	0.5	0.5	-0.04	1	0.5	0.5	0.9	1	0.5	0.5	0.9	1	0.5	0.5
-1.65	1	0.5	0.5	-0.47	1	0.5	0.5	-0.03	1	0.5	0.5	0.9	1	0.5	0.5	0.9	1	0.5	0.5
-1.55	1	0.5	0.5	-0.45	1	0.5	0.5	-0.02	1	0.5	0.5	0.9	1	0.5	0.5	0.9	1	0.5	0.5
-1.44	1	0.5	0.5	-0.42	1	0.5	0.5	-0.01	1	0.5	0.5	0.9	1	0.5	0.5	0.9	1	0.5	0.5
-1.34	1	0.5	0.5	-0.39	1	0.5	0.5	0	1	0.5	0.5	0.9	1	0.5	0.5	0.9	1	0.5	0.5
-1.3	1	0.5	0.5	-0.35	1	0.5	0.5	0	1	0.5	0.5	0.9	1	0.5	0.5	0.9	1	0.5	0.5
-1.24	1	0.5	0.5	-0.33	1	0.5	0.5	0	1	0.5	0.5	0.9	1	0.5	0.5	0.9	1	0.5	0.5
-1.2	1	0.5	0.5	-0.32	1	0.5	0.5	0	1	0.5	0.5	0.9	1	0.5	0.5	0.9	1	0.5	0.5
-1.14	1	0.5	0.5	-0.29	1	0.5	0.5	0	1	0.5	0.5	0.9	1	0.5	0.5	0.9	1	0.5	0.5
-1.09	1	0.5	0.5	-0.27	1	0.5	0.5	0	1	0.5	0.5	0.9	1	0.5	0.5	0.9	1	0.5	0.5
-1.04	1	0.5	0.5	-0.25	1	0.5	0.5	0	1	0.5	0.5	0.9	1	0.5	0.5	0.9	1	0.5	0.5
-0.92	1	0.5	0.5	-0.22	1	0.5	0.5	0	1	0.5	0.5	0.9	1	0.5	0.5	0.9	1	0.5	0.5
-0.89	1	0.5	0.5	-0.19	1	0.5	0.5	0	1	0.5	0.5	0.9	1	0.5	0.5	0.9	1	0.5	0.5







UNIVARIATE

VARIABLE=504

FREQUENCY TABLE (CONT.)

VALUE	COUNT	PERCENTS CELL	CUM	VALUE	COUNT	PERCENTS CELL	CUM	VALUE	COUNT	PERCENTS CELL	CUM	VALUE	COUNT	PERCENTS CELL	CUM
0.52	2	1.1	2.2	1.38	1	0.5	2.7	1.1	1	0.5	3.2	2.04	1	0.5	3.7
0.53	3	1.6	3.8	1.42	1	0.5	4.2	1.1	1	0.5	4.7	2.04	1	0.5	4.2
0.54	3	1.6	5.4	1.43	1	0.5	5.2	1.1	1	0.5	5.7	2.04	1	0.5	5.2
0.55	3	1.6	7.0	1.44	1	0.5	5.7	1.1	1	0.5	6.2	2.04	1	0.5	6.2
0.65	3	1.6	8.6	1.45	1	0.5	6.2	1.1	1	0.5	6.7	2.04	1	0.5	6.7
0.67	4	2.2	10.8	1.46	1	0.5	6.7	1.1	1	0.5	7.2	2.04	1	0.5	7.2
0.74	4	2.2	13.0	1.47	1	0.5	7.2	1.1	1	0.5	7.7	2.04	1	0.5	7.7
0.75	4	2.2	15.2	1.48	1	0.5	7.7	1.1	1	0.5	8.2	2.04	1	0.5	8.2
0.77	4	2.2	17.4	1.49	1	0.5	8.2	1.1	1	0.5	8.7	2.04	1	0.5	8.7
0.81	4	2.2	19.6	1.50	1	0.5	8.7	1.1	1	0.5	9.2	2.04	1	0.5	9.2
0.84	4	2.2	21.8	1.51	1	0.5	9.2	1.1	1	0.5	9.7	2.04	1	0.5	9.7
0.86	4	2.2	24.0	1.52	1	0.5	9.7	1.1	1	0.5	10.2	2.04	1	0.5	10.2
0.87	4	2.2	26.2	1.53	1	0.5	10.2	1.1	1	0.5	10.7	2.04	1	0.5	10.7
0.88	4	2.2	28.4	1.54	1	0.5	10.7	1.1	1	0.5	11.2	2.04	1	0.5	11.2
0.89	4	2.2	30.6	1.55	1	0.5	11.2	1.1	1	0.5	11.7	2.04	1	0.5	11.7
0.9	4	2.2	32.8	1.56	1	0.5	11.7	1.1	1	0.5	12.2	2.04	1	0.5	12.2
				1.57	1	0.5	12.2	1.1	1	0.5	12.7	2.04	1	0.5	12.7
				1.58	1	0.5	12.7	1.1	1	0.5	13.2	2.04	1	0.5	13.2
				1.59	1	0.5	13.2	1.1	1	0.5	13.7	2.04	1	0.5	13.7
				1.60	1	0.5	13.7	1.1	1	0.5	14.2	2.04	1	0.5	14.2
				1.61	1	0.5	14.2	1.1	1	0.5	14.7	2.04	1	0.5	14.7
				1.62	1	0.5	14.7	1.1	1	0.5	15.2	2.04	1	0.5	15.2
				1.63	1	0.5	15.2	1.1	1	0.5	15.7	2.04	1	0.5	15.7
				1.64	1	0.5	15.7	1.1	1	0.5	16.2	2.04	1	0.5	16.2
				1.65	1	0.5	16.2	1.1	1	0.5	16.7	2.04	1	0.5	16.7
				1.66	1	0.5	16.7	1.1	1	0.5	17.2	2.04	1	0.5	17.2
				1.67	1	0.5	17.2	1.1	1	0.5	17.7	2.04	1	0.5	17.7
				1.68	1	0.5	17.7	1.1	1	0.5	18.2	2.04	1	0.5	18.2
				1.69	1	0.5	18.2	1.1	1	0.5	18.7	2.04	1	0.5	18.7
				1.70	1	0.5	18.7	1.1	1	0.5	19.2	2.04	1	0.5	19.2
				1.71	1	0.5	19.2	1.1	1	0.5	19.7	2.04	1	0.5	19.7
				1.72	1	0.5	19.7	1.1	1	0.5	20.2	2.04	1	0.5	20.2
				1.73	1	0.5	20.2	1.1	1	0.5	20.7	2.04	1	0.5	20.7
				1.74	1	0.5	20.7	1.1	1	0.5	21.2	2.04	1	0.5	21.2
				1.75	1	0.5	21.2	1.1	1	0.5	21.7	2.04	1	0.5	21.7
				1.76	1	0.5	21.7	1.1	1	0.5	22.2	2.04	1	0.5	22.2
				1.77	1	0.5	22.2	1.1	1	0.5	22.7	2.04	1	0.5	22.7
				1.78	1	0.5	22.7	1.1	1	0.5	23.2	2.04	1	0.5	23.2
				1.79	1	0.5	23.2	1.1	1	0.5	23.7	2.04	1	0.5	23.7
				1.80	1	0.5	23.7	1.1	1	0.5	24.2	2.04	1	0.5	24.2
				1.81	1	0.5	24.2	1.1	1	0.5	24.7	2.04	1	0.5	24.7
				1.82	1	0.5	24.7	1.1	1	0.5	25.2	2.04	1	0.5	25.2
				1.83	1	0.5	25.2	1.1	1	0.5	25.7	2.04	1	0.5	25.7
				1.84	1	0.5	25.7	1.1	1	0.5	26.2	2.04	1	0.5	26.2
				1.85	1	0.5	26.2	1.1	1	0.5	26.7	2.04	1	0.5	26.7
				1.86	1	0.5	26.7	1.1	1	0.5	27.2	2.04	1	0.5	27.2
				1.87	1	0.5	27.2	1.1	1	0.5	27.7	2.04	1	0.5	27.7
				1.88	1	0.5	27.7	1.1	1	0.5	28.2	2.04	1	0.5	28.2
				1.89	1	0.5	28.2	1.1	1	0.5	28.7	2.04	1	0.5	28.7
				1.9	1	0.5	28.7	1.1	1	0.5	29.2	2.04	1	0.5	29.2
				2.03	1	0.5	29.2	1.1	1	0.5	29.7	2.04	1	0.5	29.7







## UNIVARIATE

VARIA BLE • HRS

FREQUENCY TABLE (CONT.)

[illegible]



## UNIVARIATE

VARIABLE=FE

## COMMENTS

QUANTILES(DEF=4)

## EXTREMES

	209	209	SUM	WGTS	209	100%	MAX	210	99%	198.6	LOWEST	HIGHEST
N	209	209	SUM	WGTS	209	100%	MAX	210	99%	198.6	5	210
MEAN	201	15090	SUM	WGTS	15090	75%	Q3	98.68	95%	159.32	8	171.1
STD DEV	44.33667	1688.4	VARIANCE		1688.4	50%	MED	35.5	10%	132	9	181
SKWESS	0.4983329	-0.085011	KURTOSIS		-0.085011	25%	Q1				10	200
US\$	1498.940	409428	CSS		409428	0%	MIN				10	210
CV	61.4489	3.06891	STD MEAN		3.06891					11.5		
MEAN=0	23.5266	0.0001	PROR>T=		0.0001					8.1		
SGN RANK	10972.5	0.0001	PROR>S=		0.0001	RANGE		205	1			
NUM	209	0.0001	MODE		0.0001	Q3-Q1		95				

### NORMAL PROBABILITY PLOT

## BOXPLOT

STEM I FAF

[illegible][illegible]

**FREQUENCY TABLE**

VALUE	COUNT	PERCENTS	CELL	CUM	PERCENTS	CELL	CUM	VALUE	COUNT	PERCENTS	CELL	CUM
5	5	10	0	5	10	0	5	45	1	20	0	5
6	5	10	0	10	20	0	10	46	1	20	0	10
7	5	10	0	15	30	0	15	47	1	20	0	15
8	5	10	0	20	40	0	20	48	1	20	0	20
9	5	10	0	25	50	0	25	49	1	20	0	25
10	5	10	0	30	60	0	30	50	1	20	0	30
11	5	10	0	35	70	0	35	51	1	20	0	35
12	5	10	0	40	80	0	40	52	1	20	0	40
13	5	10	0	45	90	0	45	53	1	20	0	45
14	5	10	0	50	100	0	50	54	1	20	0	50
15	5	10	0	55	100	0	55	55	1	20	0	55
16	5	10	0	60	100	0	60	56	1	20	0	60
17	5	10	0	65	100	0	65	57	1	20	0	65
18	5	10	0	70	100	0	70	58	1	20	0	70
19	5	10	0	75	100	0	75	59	1	20	0	75
20	5	10	0	80	100	0	80	60	1	20	0	80
21	5	10	0	85	100	0	85	61	1	20	0	85
22	5	10	0	90	100	0	90	62	1	20	0	90
23	5	10	0	95	100	0	95	63	1	20	0	95
24	5	10	0	100	100	0	100	64	1	20	0	100
25	5	10	0	105	100	0	105	65	1	20	0	105



UNIVARIATE

VARIABLE=FE

FREQUENCY TABLE (CONT.)

VALUE	COUNT	PERCENTS CELL	CUM	VALUE	COUNT	PERCENTS CELL	CUM	VALUE	COUNT	PERCENTS CELL	CUM	VALUE	COUNT	PERCENTS CELL	CUM
59	1	0.5	45.0	80	1	0.5	59.0	102	2	1.0	78.0	113	1	0.5	90.0
61	1	0.5	45.0	81	1	0.5	59.0	103	2	1.0	78.0	114	1	0.5	90.0
62	1	0.5	45.0	83	1	0.5	59.0	104	2	1.0	78.0	115	1	0.5	90.0
63	1	0.5	45.0	84	1	0.5	59.0	105	2	1.0	78.0	116	1	0.5	90.0
64	1	0.5	45.0	85	1	0.5	59.0	106	2	1.0	78.0	117	1	0.5	90.0
65	1	0.5	45.0	87	1	0.5	59.0	107	2	1.0	78.0	118	1	0.5	90.0
66	1	0.5	45.0	88	1	0.5	59.0	108	2	1.0	78.0	119	1	0.5	90.0
67	1	0.5	45.0	89	1	0.5	59.0	109	2	1.0	78.0	120	1	0.5	90.0
68	1	0.5	45.0	90	1	0.5	59.0	110	2	1.0	78.0	121	1	0.5	90.0
69	1	0.5	45.0	92	1	0.5	59.0	111	2	1.0	78.0	122	1	0.5	90.0
70	1	0.5	45.0	93	1	0.5	59.0	112	2	1.0	78.0	123	1	0.5	90.0
71	1	0.5	45.0	94	1	0.5	59.0	113	2	1.0	78.0	124	1	0.5	90.0
72	1	0.5	45.0	95	1	0.5	59.0	114	2	1.0	78.0	125	1	0.5	90.0
73	1	0.5	45.0	96	1	0.5	59.0	115	2	1.0	78.0	126	1	0.5	90.0
74	1	0.5	45.0	97	1	0.5	59.0	116	2	1.0	78.0	127	1	0.5	90.0
75	1	0.5	45.0	98	1	0.5	59.0	117	2	1.0	78.0	128	1	0.5	90.0
76	1	0.5	45.0	99	1	0.5	59.0	118	2	1.0	78.0	129	1	0.5	90.0
77	1	0.5	45.0	100	1	0.5	59.0	119	2	1.0	78.0	130	1	0.5	90.0
78	1	0.5	45.0					120	2	1.0	78.0				



## UNIVARIATE

VARIABLE=VIS

## MOMENTS

MEAN 160.269  
 STD DEV 58.931  
 SKEWNESS 1.05738  
 KURTOSIS 1.55196  
 USS 5857466  
 CV 36.7701  
 T-MEAN=0  
 SGN-RANK 38.557  
 NUM 10150.5

## QUANTILES(DEF=4)

100% MAX 368  
 75% Q3 183  
 50% MED 150  
 25% Q1 122  
 0% MIN 41  
 RANGE 327  
 Q3-Q1 61  
 MODE 142

## EXTREMES

LOWEST 344.94  
 41  
 44  
 60  
 64  
 66  
 HIGHEST 330  
 334  
 342  
 345  
 368

MISSING VALUE  
 Q3-Q1  
 MODE

% COUNT/NOBS 3.83

## NORMAL PROBABILITY PLOT

ROX PLOT

#

STEM LEAF

36 4  
 34 25  
 32 R04  
 30 6  
 28 068  
 26 7558  
 24 1656  
 22 091266668  
 20 048467  
 18 0133447900125588  
 16 0032244467789001122444566777799  
 14 0001112822334477789001122444566777799  
 12 0001112822334477789001122444566777799  
 10 0133334477789001122444566777799  
 8 039906899  
 6 046912447  
 4

MULTIPLY STEM LEAF BY 10\*\*01

## FREQUENCY TABLE

VALUE	COUNT	PERCENTS CELL	CUM PERCENTS	VALUE	COUNT	PERCENTS CELL	CUM PERCENTS
41	1	0.5	0.5	127	1	0.5	29.0
44	1	0.5	1.0	128	1	0.5	30.0
60	1	0.5	1.5	130	2	1.0	31.0
64	1	0.5	2.0	133	2	1.0	33.0
66	1	0.5	2.5	134	2	1.0	34.0
71	1	0.5	3.0	137	2	1.0	35.0
72	1	0.5	3.5	138	2	1.0	36.0
74	1	0.5	4.0	139	2	1.0	37.0
77	1	0.5	4.5	140	3	1.5	38.0
80	1	0.5	5.0	141	3	1.5	39.0
83	1	0.5	5.5	142	4	2.0	41.0
84	2	1.0	6.5				44.0



VARIABLE=VIS

FREQUENCY TABLE (CONT.)

VALUE	COUNT	PERCENTS CELL	CUM	VALUE	COUNT	PERCENTS CELL	CUM	VALUE	COUNT	PERCENTS CELL	CUM	VALUE	COUNT	PERCENTS CELL	CUM
143	3	1.0	3.0	191	1	0.3	68.3	246	1	0.3	76.6	255	1	0.3	92.0
144	1	0.3	3.3	192	1	0.3	68.6	256	1	0.3	76.9	256	1	0.3	92.3
145	1	0.3	3.6	193	1	0.3	68.9	257	1	0.3	77.2	257	1	0.3	92.6
146	1	0.3	3.9	194	1	0.3	69.2	258	1	0.3	77.5	258	1	0.3	92.9
147	1	0.3	4.2	195	1	0.3	69.5	259	1	0.3	77.8	259	1	0.3	93.2
148	1	0.3	4.5	196	1	0.3	69.8	260	1	0.3	78.1	260	1	0.3	93.5
149	1	0.3	4.8	197	1	0.3	70.1	261	1	0.3	78.4	261	1	0.3	93.8
150	1	0.3	5.1	198	1	0.3	70.4	262	1	0.3	78.7	262	1	0.3	94.1
151	1	0.3	5.4	199	1	0.3	70.7	263	1	0.3	79.0	263	1	0.3	94.4
152	1	0.3	5.7	200	1	0.3	71.0	264	1	0.3	79.3	264	1	0.3	94.7
153	1	0.3	6.0	201	1	0.3	71.3	265	1	0.3	79.6	265	1	0.3	95.0
154	1	0.3	6.3	202	1	0.3	71.6	266	1	0.3	79.9	266	1	0.3	95.3
155	1	0.3	6.6	203	1	0.3	71.9	267	1	0.3	80.2	267	1	0.3	95.6
156	1	0.3	6.9	204	1	0.3	72.2	268	1	0.3	80.5	268	1	0.3	95.9
157	1	0.3	7.2	205	1	0.3	72.5	269	1	0.3	80.8	269	1	0.3	96.2
158	1	0.3	7.5	206	1	0.3	72.8	270	1	0.3	81.1	270	1	0.3	96.5
159	1	0.3	7.8	207	1	0.3	73.1	271	1	0.3	81.4	271	1	0.3	96.8
160	1	0.3	8.1	208	1	0.3	73.4	272	1	0.3	81.7	272	1	0.3	97.1
161	1	0.3	8.4	209	1	0.3	73.7	273	1	0.3	82.0	273	1	0.3	97.4
162	1	0.3	8.7	210	1	0.3	74.0	274	1	0.3	82.3	274	1	0.3	97.7
163	1	0.3	9.0	211	1	0.3	74.3	275	1	0.3	82.6	275	1	0.3	98.0
164	1	0.3	9.3	212	1	0.3	74.6	276	1	0.3	82.9	276	1	0.3	98.3
165	1	0.3	9.6	213	1	0.3	74.9	277	1	0.3	83.2	277	1	0.3	98.6
166	1	0.3	9.9	214	1	0.3	75.2	278	1	0.3	83.5	278	1	0.3	98.9
				215	1	0.3	75.5	279	1	0.3	83.8	279	1	0.3	99.2
				216	1	0.3	75.8	280	1	0.3	84.1	280	1	0.3	99.5
				217	1	0.3	76.1	281	1	0.3	84.4	281	1	0.3	99.8
				218	1	0.3	76.4	282	1	0.3	84.7	282	1	0.3	100.0
				219	1	0.3	76.7	283	1	0.3	85.0				
				220	1	0.3	77.0	284	1	0.3	85.3				
				221	1	0.3	77.3	285	1	0.3	85.6				
				222	1	0.3	77.6	286	1	0.3	85.9				
				223	1	0.3	77.9	287	1	0.3	86.2				
				224	1	0.3	78.2	288	1	0.3	86.5				
				225	1	0.3	78.5	289	1	0.3	86.8				
				226	1	0.3	78.8	290	1	0.3	87.1				
				227	1	0.3	79.1	291	1	0.3	87.4				
				228	1	0.3	79.4	292	1	0.3	87.7				
				229	1	0.3	79.7	293	1	0.3	88.0				
				230	1	0.3	80.0	294	1	0.3	88.3				
				231	1	0.3	80.3	295	1	0.3	88.6				
				232	1	0.3	80.6	296	1	0.3	88.9				
				233	1	0.3	80.9	297	1	0.3	89.2				
				234	1	0.3	81.2	298	1	0.3	89.5				
				235	1	0.3	81.5	299	1	0.3	89.8				
				236	1	0.3	81.8	300	1	0.3	90.1				
				237	1	0.3	82.1	301	1	0.3	90.4				
				238	1	0.3	82.4	302	1	0.3	90.7				
				239	1	0.3	82.7	303	1	0.3	91.0				
				240	1	0.3	83.0	304	1	0.3	91.3				
				241	1	0.3	83.3	305	1	0.3	91.6				
				242	1	0.3	83.6	306	1	0.3	91.9				
				243	1	0.3	83.9	307	1	0.3	92.2				
				244	1	0.3	84.2	308	1	0.3	92.5				
				245	1	0.3	84.5	309	1	0.3	92.8				
				246	1	0.3	84.8	310	1	0.3	93.1				
				247	1	0.3	85.1	311	1	0.3	93.4				
				248	1	0.3	85.4	312	1	0.3	93.7				
				249	1	0.3	85.7	313	1	0.3	94.0				
				250	1	0.3	86.0	314	1	0.3	94.3				
				251	1	0.3	86.3	315	1	0.3	94.6				
				252	1	0.3	86.6	316	1	0.3	94.9				
				253	1	0.3	86.9	317	1	0.3	95.2				
				254	1	0.3	87.2	318	1	0.3	95.5				
				255	1	0.3	87.5	319	1	0.3	95.8				
				256	1	0.3	87.8	320	1	0.3	96.1				
				257	1	0.3	88.1	321	1	0.3	96.4				
				258	1	0.3	88.4	322	1	0.3	96.7				
				259	1	0.3	88.7	323	1	0.3	97.0				
				260	1	0.3	89.0	324	1	0.3	97.3				
				261	1	0.3	89.3	325	1	0.3	97.6				
				262	1	0.3	89.6	326	1	0.3	97.9				
				263	1	0.3	89.9	327	1	0.3	98.2				
				264	1	0.3	90.2	328	1	0.3	98.5				
				265	1	0.3	90.5	329	1	0.3	98.8				
				266	1	0.3	90.8	330	1	0.3	99.1				
				267	1	0.3	91.1	331	1	0.3	99.4				
				268	1	0.3	91.4	332	1	0.3	99.7				
				269	1	0.3	91.7	333	1	0.3	100.0				
				270	1	0.3	92.0	334	1	0.3					
				271	1	0.3	92.3	335	1	0.3					
				272	1	0.3	92.6	336	1	0.3					
				273	1	0.3	92.9	337	1	0.3					
				274	1	0.3	93.2	338	1	0.3					
				275	1	0.3	93.5	339	1	0.3					
				276	1	0.3	93.8	340	1	0.3					
				277	1	0.3	94.1	341	1	0.3					
				278	1	0.3	94.4	342	1	0.3					
				279	1	0.3	94.7	343	1	0.3					
				280	1	0.3	95.0	344	1	0.3					
				281	1	0.3	95.3	345	1	0.3					
				282	1	0.3	95.6	346	1	0.3					
				283	1	0.3	95.9	347	1	0.3					
				284	1	0.3	96.2	348	1	0.3					
				285	1	0.3	96.5	349	1	0.3					
				286	1	0.3	96.8	350	1	0.3					
				287	1	0.3	97.1	351	1	0.3					
				288	1	0.3	97.4	352	1	0.3					
				289	1	0.3	97.7	353	1	0.3					
				290	1	0.3	98.0	354	1	0.3					
				291	1	0.3	98.3	355	1	0.3					
				292	1	0.3	98.6	356	1	0.3					
				293	1	0.3	98.9	357	1	0.3					
				294	1	0.3	99.2	358	1	0.3					
				295	1	0.3	99.5	359	1	0.3					
				296	1	0.3	99.8	360	1	0.3					
				297	1	0.3	100.0	361	1	0.3					
				298	1	0.3		362	1	0.3					
				299	1	0.3		363	1	0.3					
				300	1	0.3		364	1	0.3					
				301	1	0.3		365	1	0.3					
				302	1	0.3		366	1	0.3					
				303	1	0.3		367	1	0.3					
				304	1	0.3		368	1	0.3					
				305	1	0.3		369	1	0.3					



**VARIABLE = TAN**

## MIMENTS

QUANTILES(DEF=4)

## EXTREMES

NORMAL PROBABILITY PLOT									
HIGHEST	LOWEST	99%	95%	90%	10%	5%	1%	0.5%	0.1%
5.92298	1.51	4.33	3.185	2.67	2.27	1.905	1.688	1.51	1.39
5.23	1.78	1.51	1.39	1.27	1.15	1.03	0.91	0.79	0.67
7.6	1.79	1.688	1.51	1.39	1.27	1.15	1.03	0.91	0.79

BOXPLOT									
#	1	2	3	4	5	6	7	8	9
7.75	7.75	7.75	7.75	7.75	7.75	7.75	7.75	7.75	7.75
4.75	4.75	4.75	4.75	4.75	4.75	4.75	4.75	4.75	4.75
1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75

FREQUENCY TABLE									
PERCENTS	CELL	COUNT	VALUE	PERCENTS	CELL	COUNT	VALUE	PERCENTS	CELL
0.5	1	1	2.3	0.5	1	1	2.3	0.5	1
0.5	2	2	2.3	0.5	2	2	2.3	0.5	2
0.5	3	3	2.3	0.5	3	3	2.3	0.5	3
0.5	4	4	2.3	0.5	4	4	2.3	0.5	4
0.5	5	5	2.3	0.5	5	5	2.3	0.5	5
0.5	6	6	2.3	0.5	6	6	2.3	0.5	6
0.5	7	7	2.3	0.5	7	7	2.3	0.5	7
0.5	8	8	2.3	0.5	8	8	2.3	0.5	8
0.5	9	9	2.3	0.5	9	9	2.3	0.5	9
0.5	10	10	2.3	0.5	10	10	2.3	0.5	10
0.5	11	11	2.3	0.5	11	11	2.3	0.5	11
0.5	12	12	2.3	0.5	12	12	2.3	0.5	12
0.5	13	13	2.3	0.5	13	13	2.3	0.5	13
0.5	14	14	2.3	0.5	14	14	2.3	0.5	14
0.5	15	15	2.3	0.5	15	15	2.3	0.5	15
0.5	16	16	2.3	0.5	16	16	2.3	0.5	16
0.5	17	17	2.3	0.5	17	17	2.3	0.5	17
0.5	18	18	2.3	0.5	18	18	2.3	0.5	18
0.5	19	19	2.3	0.5	19	19	2.3	0.5	19
0.5	20	20	2.3	0.5	20	20	2.3	0.5	20
0.5	21	21	2.3	0.5	21	21	2.3	0.5	21
0.5	22	22	2.3	0.5	22	22	2.3	0.5	22
0.5	23	23	2.3	0.5	23	23	2.3	0.5	23
0.5	24	24	2.3	0.5	24	24	2.3	0.5	24
0.5	25	25	2.3	0.5	25	25	2.3	0.5	25
0.5	26	26	2.3	0.5	26	26	2.3	0.5	26
0.5	27	27	2.3	0.5	27	27	2.3	0.5	27
0.5	28	28	2.3	0.5	28	28	2.3	0.5	28
0.5	29	29	2.3	0.5	29	29	2.3	0.5	29
0.5	30	30	2.3	0.5	30	30	2.3	0.5	30
0.5	31	31	2.3	0.5	31	31	2.3	0.5	31
0.5	32	32	2.3	0.5	32	32	2.3	0.5	32
0.5	33	33	2.3	0.5	33	33	2.3	0.5	33
0.5	34	34	2.3	0.5	34	34	2.3	0.5	34

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## UNIVARIATE

VARIABLE=TAN

## FREQUENCY TABLE (CONT.)

VALUE	COUNT	PERCENTS CELL	CUM	VALUE	COUNT	PERCENTS CELL	CUM	VALUE	COUNT	PERCENTS CELL	CUM	VALUE	COUNT	PERCENTS CELL	CUM
3.05	2	1.0	66.9	3.50	1	0.5	78.5	4.27	1	0.5	94.3	4.27	1	0.5	94.3
3.06	1	0.5	67.4	3.51	2	1.0	79.4	4.38	1	0.5	95.2	4.38	1	0.5	95.2
3.08	1	0.5	68.9	3.71	1	0.5	80.9	4.38	1	0.5	95.7	4.38	1	0.5	95.7
3.11	4	1.9	70.8	3.83	1	0.5	81.8	4.38	1	0.5	96.2	4.38	1	0.5	96.2
3.12	1	0.5	71.3	3.89	1	0.5	82.3	4.38	1	0.5	96.7	4.38	1	0.5	96.7
3.14	2	1.0	72.2	3.92	1	0.5	83.3	4.38	1	0.5	97.2	4.38	1	0.5	97.2
3.15	1	0.5	72.7	3.97	1	0.5	84.2	4.38	1	0.5	97.7	4.38	1	0.5	97.7
3.17	1	0.5	73.2	4.01	1	0.5	84.7	4.38	1	0.5	98.2	4.38	1	0.5	98.2
3.18	1	0.5	74.6	4.11	1	0.5	85.2	4.38	1	0.5	98.7	4.38	1	0.5	98.7
3.19	1	0.5	75.1	4.14	1	0.5	85.7	4.38	1	0.5	99.2	4.38	1	0.5	99.2
3.22	1	0.5	76.1	4.14	1	0.5	86.1	4.38	1	0.5	99.7	4.38	1	0.5	99.7
3.27	2	1.0	77.0	4.22	1	0.5	86.6	4.38	1	0.5	100.0	4.38	1	0.5	100.0







## VARIABLE=CON

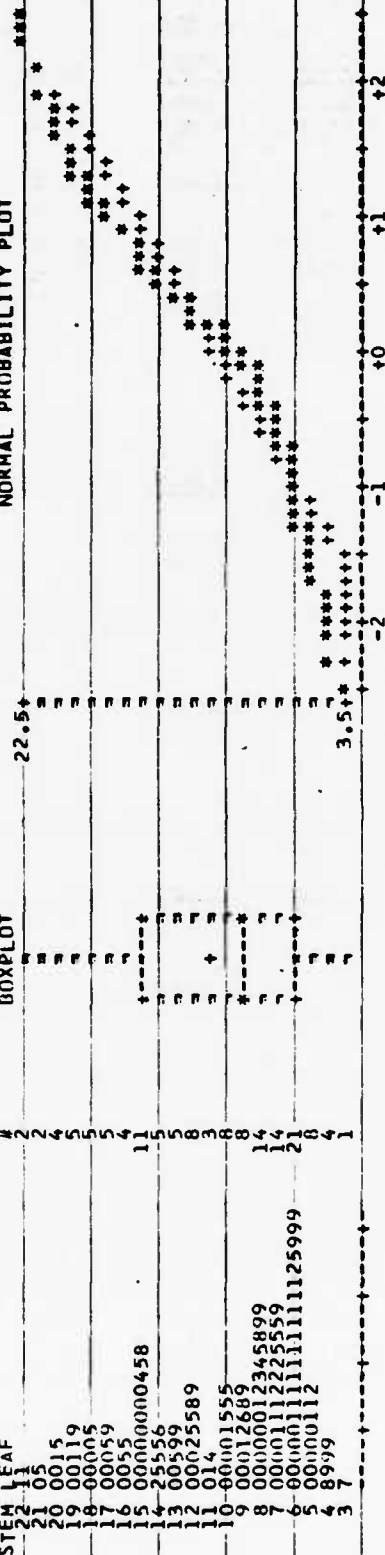
	MOMENTS	QUANTILES(DEF=4)	EXTREMES
N	137	22.1	LOWEST 22.1 HIGHEST 202.5
MEAN	11.9343	95% Q3	5.7
STD DEV	11.862	90% MED	4.8
SKEWNESS	0.547911	50% Q1	3.6
KURTOSIS	-0.199708	25% MIN	4.9
CSS	4.47575	0% MAX	4.9
STD MEAN	0.4220226	RANGE	
PRB>T	0.0001	Q3-Q1	
T-MEAN=0	26.258	MODE	
SGN RANK	472.5		
SGN RANK	137		

MISSING	VALUE	
?	COUNT	72
?	COUNT/NOBS	34.45

TOXEP: OT

STEM 1 EAF

### NORMAL PROBABILITY PLOT



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## FREQUENCY TABLE

VALUE	COUNT	PERCENTS CELL	CUM
3.7	1	0.7	0.7
4.0	1	0.7	1.4
4.0	1	0.7	2.1
4.0	1	0.7	2.8
5.1	2	1.4	4.2
5.2	1	0.7	4.9
6.6	1	0.7	5.6
6.6	1	0.7	6.3
6.6	1	0.7	7.0
6.6	1	0.7	7.7
6.6	1	0.7	8.4
6.6	1	0.7	9.1
6.6	1	0.7	9.8
6.6	1	0.7	10.5
6.6	1	0.7	11.2
6.6	1	0.7	11.9
6.6	1	0.7	12.6
6.6	1	0.7	13.3
6.6	1	0.7	14.0
6.6	1	0.7	14.7
6.6	1	0.7	15.4
6.6	1	0.7	16.1
6.6	1	0.7	16.8
6.6	1	0.7	17.5
6.6	1	0.7	18.2
6.6	1	0.7	18.9
6.6	1	0.7	19.6
6.6	1	0.7	20.3
6.6	1	0.7	21.0
6.6	1	0.7	21.7
6.6	1	0.7	22.4
6.6	1	0.7	23.1
6.6	1	0.7	23.8
6.6	1	0.7	24.5
6.6	1	0.7	25.2
6.6	1	0.7	25.9
6.6	1	0.7	26.6
6.6	1	0.7	27.3
6.6	1	0.7	28.0
6.6	1	0.7	28.7
6.6	1	0.7	29.4
6.6	1	0.7	30.1
6.6	1	0.7	30.8
6.6	1	0.7	31.5
6.6	1	0.7	32.2
6.6	1	0.7	32.9
6.6	1	0.7	33.6
6.6	1	0.7	34.3
6.6	1	0.7	35.0
6.6	1	0.7	35.7
6.6	1	0.7	36.4
6.6	1	0.7	37.1
6.6	1	0.7	37.8
6.6	1	0.7	38.5
6.6	1	0.7	39.2
6.6	1	0.7	39.9
6.6	1	0.7	40.6
6.6	1	0.7	41.3
6.6	1	0.7	42.0
6.6	1	0.7	42.7
6.6	1	0.7	43.4
6.6	1	0.7	44.1
6.6	1	0.7	44.8
6.6	1	0.7	45.5
6.6	1	0.7	46.2
6.6	1	0.7	46.9
6.6	1	0.7	47.6
6.6	1	0.7	48.3
6.6	1	0.7	49.0
6.6	1	0.7	49.7
6.6	1	0.7	50.4
6.6	1	0.7	51.1
6.6	1	0.7	51.8
6.6	1	0.7	52.5
6.6	1	0.7	53.2
6.6	1	0.7	53.9
6.6	1	0.7	54.6
6.6	1	0.7	55.3
6.6	1	0.7	56.0
6.6	1	0.7	56.7
6.6	1	0.7	57.4
6.6	1	0.7	58.1
6.6	1	0.7	58.8
6.6	1	0.7	59.5
6.6	1	0.7	60.2
6.6	1	0.7	60.9
6.6	1	0.7	61.6
6.6	1	0.7	62.3
6.6	1	0.7	63.0
6.6	1	0.7	63.7
6.6	1	0.7	64.4
6.6	1	0.7	65.1
6.6	1	0.7	65.8
6.6	1	0.7	66.5
6.6	1	0.7	67.2
6.6	1	0.7	67.9
6.6	1	0.7	68.6
6.6	1	0.7	69.3
6.6	1	0.7	70.0
6.6	1	0.7	70.7
6.6	1	0.7	71.4
6.6	1	0.7	72.1
6.6	1	0.7	72.8
6.6	1	0.7	73.5
6.6	1	0.7	74.2
6.6	1	0.7	74.9
6.6	1	0.7	75.6
6.6	1	0.7	76.3
6.6	1	0.7	77.0
6.6	1	0.7	77.7
6.6	1	0.7	78.4
6.6	1	0.7	79.1
6.6	1	0.7	79.8
6.6	1	0.7	80.5
6.6	1	0.7	81.2
6.6	1	0.7	81.9
6.6	1	0.7	82.6
6.6	1	0.7	83.3
6.6	1	0.7	84.0
6.6	1	0.7	84.7
6.6	1	0.7	85.4
6.6	1	0.7	86.1
6.6	1	0.7	86.8
6.6	1	0.7	87.5
6.6	1	0.7	88.2
6.6	1	0.7	88.9
6.6	1	0.7	89.6
6.6	1	0.7	90.3
6.6	1	0.7	91.0
6.6	1	0.7	91.7
6.6	1	0.7	92.4
6.6	1	0.7	93.1
6.6	1	0.7	93.8
6.6	1	0.7	94.5
6.6	1	0.7	95.2
6.6	1	0.7	95.9
6.6	1	0.7	96.6
6.6	1	0.7	97.3
6.6	1	0.7	98.0
6.6	1	0.7	98.7
6.6	1	0.7	99.4
6.6	1	0.7	100.0



## UNIVARIATE

VARIABLE=COR

## FREQUENCY TABLE (CONT.)

VALUE	COUNT	PERCENTS CELL	CUM	VALUE	COUNT	PERCENTS CELL	CUM	VALUE	COUNT	PERCENTS CELL	CUM
12.9	1	0.7	65.0	17.5	1	0.7	86.1	20	2	1.5	92.6
13	2	1.5	66.4	17.9	1	0.7	86.9	20.1	1	0.7	92.4
13.5	1	0.7	67.2	18	1	0.7	87.8	20.5	1	0.7	91.1
13.9	2	1.5	68.6	18.5	1	0.7	89.0	21	1	0.7	91.8
14.2	1	0.7	69.3	19	2	1.5	92.0	21.5	1	0.7	98.5
14.5	3	2.2	71.5	19.1	2	1.5	93.4	22.1	1	1.5	100.0
14.6	1	0.7	72.3	19.9	1	0.7	94.2				



APPENDIX C  
CONTINENTAL LDT-465 BENCH TEST ENGINE

<u>TABLE</u>	<u>CONTENTS</u>	<u>PAGE</u>
C-1	LDT Data	C-1
C-2	Correlation Matrix.	C-3



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## TEST ENGINE DATA IN ENGINE SEQUENCE

OBS	CL2	DETI1	DETI2	DETI3	DETI4	DETI5	FD1	FD2	FDI3	FD4	ZN1	S04	HRS	FE	VIS	TAN	TS	COB	GC
1	1.43	-1343.6	131.78	228.92	649.97	82.15	0.97	14.95	-6.39	-0.06	-2.87	0.45	14	12	.	2.8	0.8	13	.
2	16.07	-1114.2	308.87	477.14	1651.50	201.06	2.91	38.49	-165.83	0.17	-3.40	1.70	42	25	.	3.2	1.6	13	.
3	18.00	-2551.2	392.69	555.01	2125.55	251.77	3.18	0.00	-223.74	0.00	-5.11	2.32	56	30	.	3.3	1.6	9	.
4	10.12	-2551.0	423.72	630.41	2552.42	299.43	4.20	0.00	-217.88	0.00	-4.48	3.62	70	41	.	3.5	1.2	10	.
5	12.04	-2577.4	518.59	697.36	3022.92	333.14	5.32	1.14	-217.29	-0.03	-4.66	3.14	84	46	.	3.6	3.6	11	.
6	13.70	-2656.9	618.85	792.36	3403.92	387.46	7.06	0.00	-253.77	-0.07	-5.85	3.29	98	55	.	3.7	2.0	12	.
7	15.42	-2612.3	708.62	870.41	3723.43	446.34	8.98	0.00	-204.58	-0.12	-5.12	3.46	112	63	.	4.2	4.0	13	.
8	17.38	-2594.2	798.12	929.99	4109.79	497.27	10.20	1.48	-194.50	-0.09	-5.08	3.51	126	72	.	4.4	4.4	13	.
9	18.38	-2579.4	898.17	1045.15	4455.11	517.65	9.17	1.50	-232.50	-0.07	-5.89	4.32	140	89	.	4.5	5.2	14	.
10	19.94	-2608.1	998.27	1204.74	5128.11	608.62	0.00	1.74	-165.84	-0.11	-4.89	4.32	154	103	.	4.5	5.2	14	.
11	20.45	-2345.3	1058.07	1277.38	5411.12	723.49	0.00	2.22	-184.14	-0.25	-4.40	4.35	168	118	.	4.9	4.8	14	.
12	21.42	-2196.5	1157.92	1350.13	5815.85	766.43	0.00	2.40	-159.40	-0.12	-3.30	4.16	182	123	.	6.2	.	17	.
13	21.42	-2196.5	1217.83	1412.98	5978.65	837.52	0.00	2.04	-116.98	-0.12	-3.15	4.16	196	123	.	6.2	.	17	.
14	23.50	-358.0	1297.83	1706.84	6531.45	837.52	0.00	2.04	-116.98	-0.12	-3.15	4.16	210	123	.	6.2	.	17	.



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[illegible]



## TEST ENGINE DATA IN ENGINE SEQUENCE

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## CORRELATION COEFFICIENTS / NUMBER OF OBSERVATIONS

CL2

CL2	DET14	HRS	DET15	DET12	DET13	TS	FF	SO4	TAN	FO4	DET13	DET15	DET12	FD2	ZN1
1.00000	0.99083	0.98365	0.97692	0.97428	0.97209	0.96996	0.96926	0.96858	0.91860	0.60770	0.19424	0.13223	0.12338	0.52139	0.29794
14	14	14	14	14	14	13	13	14	14	14	14	14	14	14	14

FO13	FO1	DET11	VIS	GC
-0.26126	-0.14282	-0.01352	0.00000	0.00000
14	14	14	0	0

DET11

DET11	ZN1	TS	FO13	COM	FE	FO2	FO1	TAN	SO4	DET13	DET15	DET12	FD4
1.00000	0.86684	-0.67548	0.63698	0.47251	-0.46405	0.43591	-0.41230	0.34692	-0.19633	0.19424	0.13223	0.12338	0.12196
14	14	13	14	14	13	14	14	14	14	14	14	14	14

HRS	DET14	CL2	VIS	GC
0.10683	0.07739	-0.01352	0.00000	0.00000
14	14	14	0	0

DET12

DET12	DET15	HRS	FE	DET14	DET13	CL2	TAN	IS	SO4	COM	FO4	FD2	FD1
1.00000	0.99963	0.99652	0.99544	0.99533	0.99192	0.97428	0.94950	0.92354	0.92325	0.76729	-0.73032	-0.45386	-0.33500
14	14	14	13	14	14	14	14	13	14	14	14	14	14

ZN1	DET11	FO13	VIS	GC
-0.13701	0.12358	-0.09671	0.00000	0.00000
14	14	14	0	0

DET13

DET13	DET15	DET12	HRS	FE	DET14	CL2	TAN	IS	SO4	COM	FO4	FD2	FD1
1.00000	0.99472	0.99292	0.99287	0.99230	0.99210	0.97209	0.97208	0.93941	0.90775	0.77943	-0.69159	-0.44452	-0.29861
14	14	14	14	13	14	14	14	13	14	14	14	14	14

DET11	ZN1	FO13	VIS	GC
0.19424	-0.10725	-0.09415	0.00000	0.00000
14	14	14	0	0

DET14

DET14	HRS	DET15	DET12	DET13	CL2	FE	IS	TAN	SO4	COM	FO4	FD2	FD1
1.00000	0.99789	0.99639	0.99533	0.99210	0.99083	-0.99035	-0.95071	0.94675	0.94459	0.74691	-0.72813	-0.49150	-0.24942
14	14	14	14	14	14	13	13	14	14	14	14	14	14

ZN1	FO13	DET11	VIS	GC
-0.19928	-0.15887	0.07739	0.00000	0.00000
14	14	14	0	0

DET15

DET15	DET12	HRS	DET14	FE	DET13	CL2	TAN	IS	SO4	COM	FO4	FD2	FD1
1.00000	0.99963	0.99756	0.99633	0.99611	0.99472	0.97692	0.95411	0.92466	0.92298	0.77030	-0.73138	-0.45100	-0.32120
14	14	14	14	13	14	14	14	13	14	14	14	14	14



# TEST ENGINE DATA IN ENGINE SEQUENCE

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DET15

DET11 0.13221 14  
 DET13 0.00926 14  
 VIS 0.00000 0  
 GC 0.00000 0

FD1

FD1 1.00000 14  
 DET13 -0.52708 14  
 ZN1 -0.47054 14  
 CNH -0.39933 14  
 DET12 -0.33500 14  
 DET15 -0.32120 14  
 IRS -0.27056 14  
 TAN -0.27908 14  
 DET14 -0.24949 14  
 FD4 0.24859 14  
 FE -0.23322 13  
 FD2 -0.16295 14

CL2 -0.14282 14  
 S04 -0.10639 14  
 IS 0.00049 13  
 VIS 0.00000 0  
 GC 0.00000 0

FD2

FD2 1.00000 14  
 ZN1 0.62353 14  
 FD4 0.61903 14  
 S04 -0.58494 14  
 IS -0.57821 13  
 CL2 -0.53128 14  
 DET14 -0.49150 14  
 DET15 -0.45100 14  
 DET12 -0.45386 14  
 FE -0.45446 13  
 HRS -0.47331 14  
 TAN -0.45446 14  
 DET13 -0.45100 14  
 DET11 -0.43591 14  
 IAN -0.40358 14

FD13 0.38542 14  
 CNH -0.32878 14  
 FD1 -0.16295 14  
 VIS 0.00000 0  
 GC 0.00000 0

FD13

FD13 1.00000 14  
 ZN1 0.84161 14  
 DET11 0.63698 14  
 FD1 -0.52708 14  
 S04 -0.42919 14  
 S04 0.42681 14  
 COB 0.38542 14  
 FD2 0.38542 14  
 CL2 -0.26126 14  
 FE -0.23875 13  
 DET14 -0.15887 14  
 HRS -0.12213 14  
 DET15 -0.09926 14  
 DET12 -0.09671 14

DET13 -0.09415 14  
 FD4 -0.07330 14  
 TAN -0.00787 14  
 VIS 0.00000 0  
 GC 0.00000 0

FD4

FD4 1.00000 14  
 FE -0.78888 13  
 DET12 -0.73932 14  
 HRS -0.73903 14  
 DET15 -0.73138 14  
 DET14 -0.72813 14  
 CL2 -0.69776 14  
 CL2 -0.69169 14  
 TS -0.65840 13  
 S04 -0.65738 14  
 TAN -0.65391 14  
 FD2 -0.61903 14  
 FD1 -0.54859 14

ZN1 0.15821 14  
 DET11 -0.12146 14  
 FD13 -0.07330 14  
 VIS 0.00000 0  
 GC 0.00000 0

ZN1

ZN1 1.0 4  
 DET11 0.86684 14  
 FD13 0.84161 14  
 FD2 0.62353 14  
 IS -0.61508 13  
 S04 -0.47054 14  
 FD1 -0.46866 14  
 FE -0.42233 13  
 COB 0.33984 14  
 CL2 -0.29794 14  
 DET14 -0.19928 14  
 HRS -0.16037 14  
 FD4 -0.15821 14  
 DET12 -0.13701 14

DET15 -0.13211 14  
 DET13 -0.10725 14  
 TAN 0.02912 14  
 VIS 0.00000 0  
 GC 0.00000 0



CORRELATION COEFFICIENTS / NUMBER OF OBSERVATIONS

[illegible]

11



TEST ENGINE DATA IN ENGINE SEQUENCE

CORRELATION COEFFICIENTS / NUMBER OF OBSERVATIONS

TS

FD2 FD13 FD1 VIS GC  
-0.57821 -0.43848 0.00042 0.00000 0.00000  
13 13 13 0 0

COR

COB COB TAIL TAIL DET13 DET15 DET12 DET14 HRS HRS S04 S04 FE FE  
1.00000 0.82626 0.77943 0.77030 0.76729 0.76425 0.73782 -0.72749 0.68809 0.61899 0.53619 0.47251 0.42681  
14 14 14 14 14 14 13 14 14 13 14 14 14

FD1

FD1 ZNI ZNI FD2 VIS GC  
-0.39933 0.33964 -0.32878 0.00000 0.00000  
14 14 14 0 0

GC

CL2 CL2 DET11 DET12 DET13 DET14 DET15 DET16 FD1 FD2 FD3 FD4 ZNI ZNI S04 S04 FE FE  
0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000  
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

VIS

VIS TAIL TAIL TS COB GC  
0.00000 0.00000 0.00000 0.00000 0.00000 0.00000  
0 0 0 0 0 0

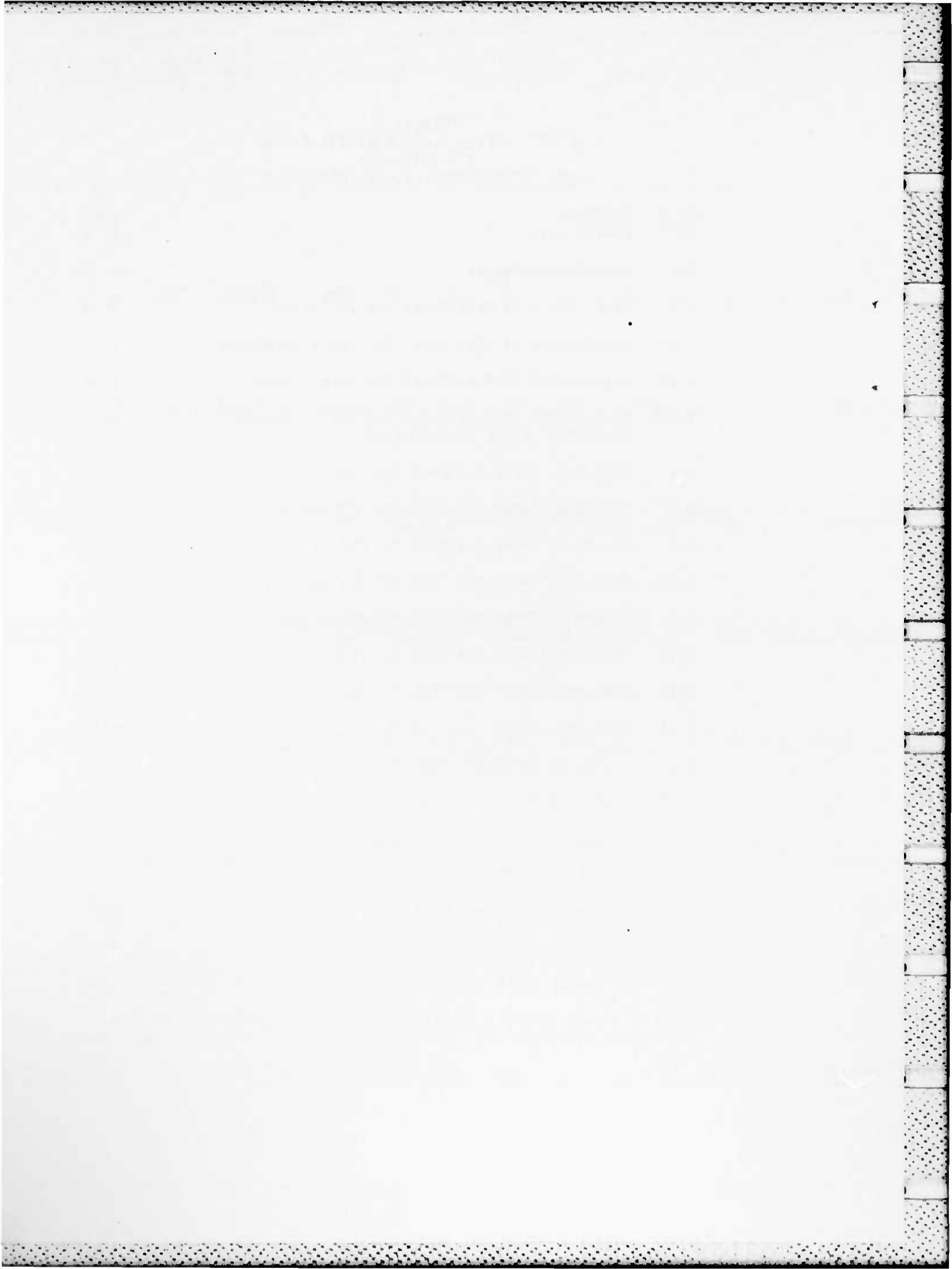


APPENDIX D  
DETROIT DIESEL ALLISON 6V-53T ENGINE  
1ST BATTALION  
22ND FIELD ARTILLERY, FT. CARSON, CO.

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\* These models were all developed early in the study and are based on a slightly different data collection methodology than that outlined in Table 1.











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DBS	C12	DE11	DE12	DE13	DE14	FD1	FD2	FD13	ZNI	HRS	FE	VIS	TAN	TS	CNB	GC
57	36.44	150.0.93	-118.73	41.71	408.36	-0.78	0.00	211.12	1.34	.	62	184	2.36	4.00	.	.
58	35.23	247.0.62	-128.04	12.09	410.88	-0.11	0.00	171.06	-0.53	.	122	184	1.78	3.20	.	.
59	35.23	170.0.62	-133.92	13.09	402.88	-0.46	0.00	145.30	-0.53	.	122	205	1.38	10.00	.	.
60	35.23	237.0.62	-133.92	13.09	402.88	-0.46	0.00	145.30	-0.53	.	122	205	1.38	10.00	.	.
61	35.23	949.91	51.65	41.71	222.97	-2.77	0.00	136.53	1.32	.	122	271	1.87	7.20	.	.
62	35.23	1152.67	92.18	805.85	238.53	-2.39	0.00	1331.72	1.03	.	113	280	1.97	8.80	16.0	3
63	35.23	1361.16	25.28	-21.56	378.53	-0.92	0.00	222.12	1.03	.	113	280	1.97	8.80	16.0	3
64	35.23	428.95	71.28	-41.78	423.80	-0.98	0.00	-108.28	0.41	58	59	186	2.22	0.80	10.8	4
65	35.23	1017.14	29.92	123.35	1372.85	-1.16	0.00	193.71	1.11	104	65	246	2.34	2.00	11.0	6
66	35.23	1022.17	2.42	206.68	1036.16	-1.12	0.00	212.93	0.67	.	65	143	2.23	2.00	11.0	6
67	35.23	451.03	-37.79	219.80	1036.16	-1.12	0.00	212.93	0.67	.	65	143	2.23	2.00	11.0	6
68	35.23	393.06	-37.41	264.56	1130.17	-2.25	0.00	193.50	0.67	.	65	143	2.23	2.00	11.0	6
69	35.23	434.06	-58.73	213.09	1146.75	-2.25	0.00	163.06	0.67	.	80	147	2.23	2.00	4.5	3
70	35.23	540.95	-49.56	187.36	1028.47	-2.31	0.00	158.63	0.42	.	80	147	2.23	2.00	4.5	3
71	35.23	-201.93	-144.83	187.36	185.54	-2.31	0.00	158.63	0.42	.	80	147	2.23	2.00	4.5	3
72	35.23	1044.28	59.74	677.29	1889.72	-2.39	0.00	1241.69	1.35	.	89	207	2.32	10.80	.	.
73	35.23	1044.28	59.74	677.29	1889.72	-2.39	0.00	1241.69	1.35	.	89	207	2.32	10.80	.	.
74	35.23	1044.28	59.74	677.29	1889.72	-2.39	0.00	1241.69	1.35	.	89	207	2.32	10.80	.	.
75	35.23	1044.28	59.74	677.29	1889.72	-2.39	0.00	1241.69	1.35	.	89	207	2.32	10.80	.	.
76	35.23	1044.28	59.74	677.29	1889.72	-2.39	0.00	1241.69	1.35	.	89	207	2.32	10.80	.	.
77	35.23	1044.28	59.74	677.29	1889.72	-2.39	0.00	1241.69	1.35	.	89	207	2.32	10.80	.	.
78	35.23	1044.28	59.74	677.29	1889.72	-2.39	0.00	1241.69	1.35	.	89	207	2.32	10.80	.	.
79	35.23	1044.28	59.74	677.29	1889.72	-2.39	0.00	1241.69	1.35	.	89	207	2.32	10.80	.	.
80	35.23	1044.28	59.74	677.29	1889.72	-2.39	0.00	1241.69	1.35	.	89	207	2.32	10.80	.	.
81	35.23	1044.28	59.74	677.29	1889.72	-2.39	0.00	1241.69	1.35	.	89	207	2.32	10.80	.	.
82	35.23	1044.28	59.74	677.29	1889.72	-2.39	0.00	1241.69	1.35	.	89	207	2.32	10.80	.	.
83	35.23	1044.28	59.74	677.29	1889.72	-2.39	0.00	1241.69	1.35	.	89	207	2.32	10.80	.	.
84	35.23	1044.28	59.74	677.29	1889.72	-2.39	0.00	1241.69	1.35	.	89	207	2.32	10.80	.	.
85	35.23	1044.28	59.74	677.29	1889.72	-2.39	0.00	1241.69	1.35	.	89	207	2.32	10.80	.	.
86	35.23	1044.28	59.74	677.29	1889.72	-2.39	0.00	1241.69	1.35	.	89	207	2.32	10.80	.	.
87	35.23	1044.28	59.74	677.29	1889.72	-2.39	0.00	1241.69	1.35	.	89	207	2.32	10.80	.	.
88	35.23	1044.28	59.74	677.29	1889.72	-2.39	0.00	1241.69	1.35	.	89	207	2.32	10.80	.	.
89	35.23	1044.28	59.74	677.29	1889.72	-2.39	0.00	1241.69	1.35	.	89	207	2.32	10.80	.	.
90	35.23	1044.28	59.74	677.29	1889.72	-2.39	0.00	1241.69	1.35	.	89	207	2.32	10.80	.	.
91	35.23	1044.28	59.74	677.29	1889.72	-2.39	0.00	1241.69	1.35	.	89	207	2.32	10.80	.	.
92	35.23	1044.28	59.74	677.29	1889.72	-2.39	0.00	1241.69	1.35	.	89	207	2.32	10.80	.	.
93	35.23	1044.28	59.74	677.29	1889.72	-2.39	0.00	1241.69	1.35	.	89	207	2.32	10.80	.	.
94	35.23	1044.28	59.74	677.29	1889.72	-2.39	0.00	1241.69	1.35	.	89	207	2.32	10.80	.	.
95	35.23	1044.28	59.74	677.29	1889.72	-2.39	0.00	1241.69	1.35	.	89	207	2.32	10.80	.	.
96	35.23	1044.28	59.74	677.29	1889.72	-2.39	0.00	1241.69	1.35	.	89	207	2.32	10.80	.	.
97	35.23	1044.28	59.74	677.29	1889.72	-2.39	0.00	1241.69	1.35	.	89	207	2.32	10.80	.	.
98	35.23	1044.28	59.74	677.29	1889.72	-2.39	0.00	1241.69	1.35	.	89	207	2.32	10.80	.	.
99	35.23	1044.28	59.74	677.29	1889.72	-2.39	0.00	1241.69	1.35	.	89	207	2.32	10.80	.	.
100	35.23	1044.28	59.74	677.29	1889.72	-2.39	0.00	1241.69	1.35	.	89	207	2.32	10.80	.	.
101	35.23	1044.28	59.74	677.29	1889.72	-2.39	0.00	1241.69	1.35	.	89	207	2.32	10.80	.	.
102	35.23	1044.28	59.74	677.29	1889.72	-2.39	0.00	1241.69	1.35	.	89	207	2.32	10.80	.	.
103	35.23	1044.28	59.74	677.29	1889.72	-2.39	0.00	1241.69	1.35	.	89	207	2.32	10.80	.	.
104	35.23	1044.28	59.74	677.29	1889.72	-2.39	0.00	1241.69	1.35	.	89	207	2.32	10.80	.	.
105	35.23	1044.28	59.74	677.29	1889.72	-2.39	0.00	1241.69	1.35	.	89	207	2.32	10.80	.	.
106	35.23	1044.28	59.74	677.29	1889.72	-2.39	0.00	1241.69	1.35	.	89	207	2.32	10.80	.	.
107	35.23	1044.28	59.74	677.29	1889.72	-2.39	0.00	1241.69	1.35	.	89	207	2.32	10.80	.	.
108	35.23	1044.28	59.74	677.29	1889.72	-2.39	0.00	1241.69	1.35	.	89	207	2.32	10.80	.	.
109	35.23	1044.28	59.74	677.29	1889.72	-2.39	0.00	1241.69	1.35	.	89	207	2.32	10.80	.	.
110	35.23	1044.28	59.74	677.29	1889.72	-2.39	0.00	1241.69	1.35	.	89	207	2.32	10.80	.	.
111	35.23	1044.28	59.74	677.29	1889.72	-2.39	0.00	1241.69	1.35	.	89	207	2.32	10.80	.	.
112	35.23	1044.28	59.74	677.29	1889.72	-2.39	0.00	1241.69	1.35	.	89	207	2.32	10.80	.	.



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OBS	CL2	DET1	DET2	DET3	DET4	FD1	FD2	FDI3	ZNI	HRS	FE	VIS	TAN	TS	CNH	GC
113	10.19	174.69	-21.00	-240.39	32.10	0.77	0	-14.16	-0.47	43	107	181	2.18	1.2	11.0	:
114	24.20	1819.11	142.01	171.15	1596.17	1.50	0	70.40	1.00	2	118	220	1.95	2.0	4.7	:
115	24.20	1020.18	-41.80	116.04	540.69	1.37	0	155.04	0.04	31	137	223	2.64	0.4	5.8	:
116	24.20									38	145	160	2.81	0.8	4.5	:
117	24.20									38	145	160	2.20	0.4	3.5	:
118	24.20									38	145	160	2.24	0.4	3.0	:
119	24.20									38	145	160	2.06	0.0	3.8	:
120	24.20									38	145	160	2.06	0.0	3.8	:
VARIABLE	N	MEAN	STD DEV	SUM	MINIMUM	MAXIMUM										
CL2	119	34.33647059	17.35052530	4086.0400000	-0.23000000	75.67000000										
DET1	110	685.17309091	1196.25622223	75369.0400000	-4165.21000000	6278.68000000										
DET2	110	71.57909091	102.99738811	7873.7000000	-183.92000000	281.87000000										
DET3	110	288.87409091	244.95400078	31776.1500000	-353.68000000	1061.65000000										
DET4	110	1175.32445455	604.82718396	129285.6900000	-221.69000000	2926.55000000										
FD1	110	-1.20245455	2.95306098	-132.2700000	-10.36000000	13.38000000										
FD2	110	0.63109091	1.69155991	69.4200000	0	11.67000000										
FDI3	110	223.06627273	384.83165900	24537.2900000	-318.86000000	1802.27000000										
ZNI	110	0.31472727	0.95439467	34.6200000	-3.62000000	4.24000000										
HRS	27	150.62962963	205.48032811	4067.0000000	1.00000000	578.00000000										
FE	120	87.50833333	30.98278075	10501.0000000	5.00000000	200.00000000										
VIS	116	203.21551724	49.28194061	23573.0000000	102.00000000	346.00000000										
TAN	120	2.40800000	0.39207614	288.9600000	1.38000000	3.78000000										
TS	120	5.10108333	4.33276045	612.1300000	0.03000000	36.00000000										
CUB	93	8.54301075	5.45079567	794.5000000	3.00000000	48.00000000										
GC	14	3.21428571	1.36880472	45.0000000	1.00000000	6.00000000										

F







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FD13

FD13 1.00000 0.63182 -0.62088 0.52308 0.50149 0.35222 0.33128 0.29410 0.25214 0.19731 0.16960 0.13853 0.11667

GC 14  
FE 86  
-0.04529 -0.02005 110

ZNI

ZNI 1.00000 0.64822 0.52808 0.32695 0.31765 0.27735 0.23636 0.21832 0.15352 0.14618 0.13509 0.10862 0.10862

DET1 110  
COM 86  
0.04885 0.00316 110

HRS

HRS 1.00000 1.00000 0.77716 0.59777 0.49211 0.47680 0.46107 0.36243 0.31164 0.27312 0.23636 0.19731 0.11491

GC 2  
FD1 22  
0.09336 0.06236 22

FE 6

FE 1.00000 -0.67327 0.47680 0.46329 0.37079 -0.25882 0.25335 0.17422 0.10862 0.09136 0.02551 0.02027 0.02027

GC 14  
COM 93  
-0.02005 -0.01180 110

VIS

VIS 1.00000 -0.54869 0.49211 0.47077 0.43504 0.39927 0.33168 0.30804 0.17656 0.13447 0.09136 0.04881 0.04881

GC 107  
FD2 107  
-0.02162 -0.01359 107

TAN

TAN 1.00000 -0.39616 0.23533 0.23159 0.20748 -0.17656 0.13853 0.12455 0.11433 0.07531 0.06254 0.03624 0.03624

GC 14  
FD1 107  
0.23533 0.23159 0.20748 -0.17656 0.13853 0.12455 0.11433 0.07531 0.06254 0.03624 0.03624



ENGINE 6V531 17:38 MONDAY, JUNE 4, 1984

CORRELATION COEFFICIENTS / NUMBER OF OBSERVATIONS

TAN

FD1 0.02461  
110 0.02248  
120

TS

TS HRS 0.77716  
120 27  
GC 0.68485  
14 27  
CL2 0.67546  
119 86  
VIS 0.43504  
116 93  
FE 0.37079  
120 86  
FUI3 0.29410  
110 86  
DEI4 0.28979  
110 86  
ZNI 0.27735  
110 93  
DET3 0.26328  
110 86  
COR 0.17535  
93 86  
FD1 0.11421  
110 90  
FUI2 0.06790  
110 93

TAN DEI1  
120 110  
-0.06254 0.03553

COR

COR GC 0.29562  
93 11  
HRS 0.27712  
27 86  
DET1 0.21191  
86 86  
TS 0.17535  
93 86  
DEI2 0.14574  
86 86  
FUI3 0.04529  
86 86  
FD1 0.03088  
86 86  
VIS 0.02162  
90 93

ZNI CL2  
86 93  
0.00316 -0.00005

GC

HRS 1.00000  
14 14  
GC 1.00000  
14 14  
TS 0.68485  
14 14  
FE 0.67327  
14 14  
FUI2 0.66768  
14 14  
DEI3 0.50825  
14 14  
ZNI 0.39616  
14 14  
COR 0.29562  
11 11  
DET1 0.22872  
14 14  
FUI4 0.13873  
14 14  
VIS 0.05348  
14 14

D-7

DEI2 0.02443  
14 14  
FD1 0.00057  
14 14

F



STEP 1 VARIABLE DET2 ENTERED R SQUARE = 0.6827854 C(P) = 125.3098459

DE	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
REGRESSION	665031.60545743	665031.60545743	204.48	0.0001
ERROR	309961.89969121	3252.2352313		
TOTAL	973993.50515464			

R VALUE	STD ERROR	TYPE II SS	PROB>F
INTERCEPT	202.68921446		
DET2	0.00000037	665031.60545743	204.48

THE ABOVE MODEL IS THE BEST 1 VARIABLE MODEL FOUND.

STEP 2 VARIABLE DET1 ENTERED R SQUARE = 0.82474259 C(P) = 29.62986416

DE	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
REGRESSION	803293.92306144	401646.96153072	221.18	0.0001
ERROR	170699.58209120	1815.95300099		
TOTAL	973993.50515464			

R VALUE	STD ERROR	TYPE II SS	PROB>F
INTERCEPT	195.32363664		
DET1	0.00000084	145972.33421141	80.38
DET2	0.00000084	138262.31760401	76.14

THE ABOVE MODEL IS THE BEST 2 VARIABLE MODEL FOUND.

STEP 3 VARIABLE DET2 ENTERED R SQUARE = 0.83721301 C(P) = 23.04645678

DE	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
REGRESSION	815440.02682045	271813.34560683	159.43	0.0001
ERROR	158553.46833415	1704.87600359		
TOTAL	973993.50515464			

R VALUE	STD ERROR	TYPE II SS	PROB>F
INTERCEPT	211.18040760		
DET1	0.00000038	12146.11375905	7.12
DET2	0.00000038	105078.43367216	61.53
DET3	0.00000001	101017.66369638	59.25

THE ABOVE MODEL IS THE BEST 3 VARIABLE MODEL FOUND.

STEP 4 VARIABLE CL1 ENTERED R SQUARE = 0.84993732 C(P) = 16.28830408

DE	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
REGRESSION	827833.42725798	206958.35681450	130.27	0.0001
ERROR	145160.07789666	1588.69649894		
TOTAL	973993.50515464			

R VALUE	STD ERROR	TYPE II SS	PROB>F
INTERCEPT	184.58656082		
CL1	0.00000021	12393.39043749	7.80
DET2	-0.00000051	13570.91615370	8.54
DET1	0.00000033	98794.99116963	62.19
DET3	-0.00000097	92135.07665291	59.93

F



REGRESSION	4	829400.5713838	207350.14284584	131.93	0.0001
ERROR	92	144582.93377126	1571.6232360		
TOTAL	96	973993.50515464			
R VALUE					
INTERCEPT	189.0376597				
CL1	0.42672411				
DET12	-0.00011731				
DET13	0.00016357				
DET14	0.00000578				
STD ERROR					
INTERCEPT	0.14103193				
CL1	0.00003991				
DET12	0.00002028				
DET13	0.00000074				
DET14	0.00000074				
TYPE II SS					
INTERCEPT	14388.60463875				
CL1	14288.38705952				
DET12	102700.45753283				
DET13	96782.17077831				
DET14	96782.17077831				
MEAN SQUARE					
INTERCEPT	14388.60463875				
CL1	14288.38705952				
DET12	102700.45753283				
DET13	96782.17077831				
DET14	96782.17077831				
F					
INTERCEPT	9.16				
CL1	9.09				
DET12	65.35				
DET13	61.58				
DET14	61.58				
PROB>F					
INTERCEPT	0.0032				
CL1	0.0032				
DET12	0.0001				
DET13	0.0001				
DET14	0.0001				
THE ABOVE MODEL IS THE BEST 4 VARIABLE MODEL FOUND.					
STEP 5	VARIABLE CL1 ENTERED	P SQUARE = 0.85951642	C(P) = 11.69500023		
SUM OF SQUARES					
REGRESSION	5	837163.40719235	167432.69143847	111.35	0.0001
ERROR	91	136830.09786225	1503.62745014		
TOTAL	96	973993.50515464			
R VALUE					
INTERCEPT	189.7411052				
CL1	1.48448116				
CL2	-1.8555807				
DET12	-0.00012938				
DET13	0.00015758				
DET14	0.00000558				
STD ERROR					
INTERCEPT	0.58553816				
CL1	0.83422953				
CL2	0.83422953				
DET12	0.00003843				
DET13	0.00002004				
DET14	0.00000073				
TYPE II SS					
INTERCEPT	14055.50553737				
CL1	1762.83580897				
CL2	1704.12572685				
DET12	92975.78558335				
DET13	88272.91968159				
DET14	88272.91968159				
MEAN SQUARE					
INTERCEPT	14055.50553737				
CL1	1762.83580897				
CL2	1704.12572685				
DET12	92975.78558335				
DET13	88272.91968159				
DET14	88272.91968159				
F					
INTERCEPT	9.35				
CL1	5.16				
CL2	5.16				
DET12	11.83				
DET13	11.83				
DET14	11.83				
PROB>F					
INTERCEPT	0.0029				
CL1	0.0554				
CL2	0.0554				
DET12	0.0011				
DET13	0.0011				
DET14	0.0011				
THE ABOVE MODEL IS THE BEST 5 VARIABLE MODEL FOUND.					
STEP 6	VARIABLE DET12 ENTERED	P SQUARE = 0.86232271	C(P) = 11.76342773		
SUM OF SQUARES					
REGRESSION	5	838834.52159426	167766.90431885	112.95	0.0001
ERROR	91	135158.98356038	1485.26355561		
TOTAL	96	973993.50515464			
R VALUE					
INTERCEPT	188.35190485				
CL1	1.66901924				
CL2	-2.14216922				
DET12	-0.00013188				
DET13	0.0001521				
DET14	0.00001444				
STD ERROR					
INTERCEPT	0.47956463				
CL1	0.82524095				
CL2	0.82524095				
DET12	0.00003824				
DET13	0.0000191				
DET14	0.00000183				
TYPE II SS					
INTERCEPT	18009.43894409				
CL1	1008.05149724				
CL2	1755.6170760				
DET12	9448.89998527				
DET13	92765.44977972				
DET14	92765.44977972				
MEAN SQUARE					
INTERCEPT	18009.43894409				
CL1	1008.05149724				
CL2	1755.6170760				
DET12	9448.89998527				
DET13	92765.44977972				
DET14	92765.44977972				
F					
INTERCEPT	12.13				
CL1	6.74				
CL2	6.74				
DET12	11.89				
DET13	63.72				
DET14	62.46				
PROB>F					
INTERCEPT	0.0008				
CL1	0.0110				
CL2	0.0110				
DET12	0.0009				
DET13	0.0001				
DET14	0.0001				

REGRESSION	6	839896.71557818	139982.78592970	93.95	0.0001
ERROR	90	134096.74957445	1486.96432863		
TOTAL	96	973993.50515464			
R VALUE					
INTERCEPT	181.51057917				
CL1	1.41838286				
CL2	-2.33786673				
DET12	-0.00012938				
DET13	0.00015758				
DET14	0.00000558				
STD ERROR					
INTERCEPT	0.51149600				
CL1	0.85840891				
CL2	0.85840891				
DET12	0.00007369				
DET13	0.0000210				
DET14	0.00000202				
TYPE II SS					
INTERCEPT	18430.50828929				
CL1	1051.07712995				
CL2	1062.19398392				
DET12	9393.90217962				
DET13	85713.46478875				
DET14	83961.91056204				
MEAN SQUARE					
INTERCEPT	18430.50828929				
CL1	1051.07712995				
CL2	1062.19398392				
DET12	9393.90217962				
DET13	85713.46478875				
DET14	83961.91056204				
F					
INTERCEPT	12.64				
CL1	7.42				
CL2	7.42				
DET12	6.30				
DET13	57.53				
DET14	56.35				
PROB>F					
INTERCEPT	0.0006				
CL1	0.0078				
CL2	0.0078				
DET12	0.0138				
DET13	0.0001				
DET14	0.0001				







REGRESSION 6 845050-08717588 140841.68119598 U.UUUU  
 FROPP 90 128923.41797876 1432.70464421  
 TOTAL 96 973993.50515464

R VALUE STD ERROR TYPE II SS F PROB>F  
 INTERCEPT 192.3683027 0.46539463 14566.82391907 10.17 0.0020  
 CL1 1.48397119 0.80377782 8041.83941291 5.61 0.0200  
 CL2 -1.00430919 0.00858675 13606.06552057 9.50 0.0027  
 DE13 0.00002144 0.00000410 39150.13259812 27.33 0.0001  
 DE114 0.00002041 0.00000394 38549.24331846 26.91 0.0001  
 DE134 -0.00000190 0.00000066 11673.32579919 8.15 0.0054

THE ABOVE MODEL IS THE BEST 6 VARIABLE MODEL FOUND.

STEP 7 VARIABLE C204 ENTERED R SQUARE = 0.86868374 C(P) = 9.38512301  
 DF SUM OF SQUARES MEAN SQUARE F PROB>F  
 REGRESSION 7 846092.31888633 120870.33126948 84.11 0.0001  
 FROPP 89 127901.18678231 1437.09198054  
 TOTAL 96 973993.50515464

R VALUE STD ERROR TYPE II SS F PROB>F  
 INTERCEPT 180.06056056 0.46538571 14281.27536237 9.94 0.0022  
 CL1 1.47023367 0.88263908 4699.10176050 3.27 0.0739  
 CL2 -1.58605482 0.00872624 12001.67565268 8.35 0.0048  
 DE13 0.00251773 0.00003855 1042.23171045 0.73 0.3967  
 DE113 0.00002056 0.00000424 33852.86439584 23.56 0.0001  
 DE114 0.00001957 0.00000406 33298.06054609 23.17 0.0001  
 DE134 -0.00000191 0.00000067 11856.38531379 8.25 0.0051

STEP 7 CL2 REPLACED BY CLD4 F SQUARE = 0.86899488 C(P) = 9.17096250

DF SUM OF SQUARES MEAN SQUARE F PROB>F  
 REGRESSION 7 846395.37078229 120913.62439747 84.34 0.0001  
 FROPP 89 127298.13437233 1433.68640306  
 TOTAL 96 973993.50515464

R VALUE STD ERROR TYPE II SS F PROB>F  
 INTERCEPT 180.63170953 0.24208426 6463.08938770 4.51 0.0365  
 CL1 0.51395569 0.00863855 8481.03517864 5.92 0.0170  
 CL2 -1.00000000 0.00004290 5002.15365646 3.49 0.0651  
 CLD4 0.00016266 0.00006458 9096.44296232 6.34 0.0136  
 DE113 0.00001998 0.00000421 32290.97093841 22.52 0.0001  
 DE114 0.00001922 0.00000404 31760.58774237 22.15 0.0001  
 DE134 -0.00000157 0.00000068 1700.62870580 5.37 0.0228

THE ABOVE MODEL IS THE BEST 7 VARIABLE MODEL FOUND.



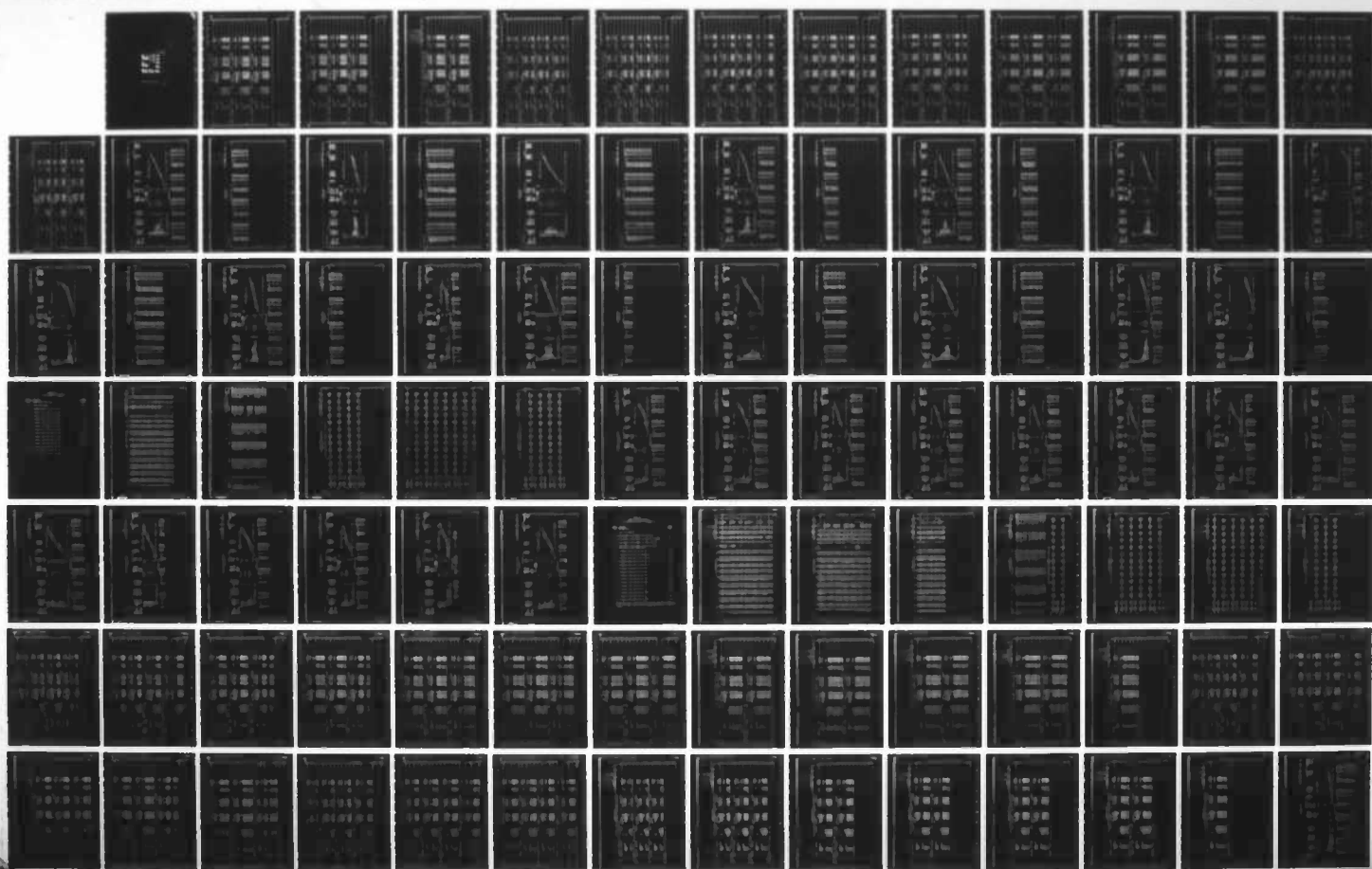
AD-A152 994

EVALUATION OF USED CRANKCASE OILS USING COMPUTERIZED  
INFRARED SPECTROMETR. (U) JOINT OIL ANALYSIS PROGRAM  
PENSACOLA FL TECHNICAL SUPPORT CEN. B B MCCA ET AL.  
JUN 84 JOAP-TSC-84-01-APP F/G 20/6

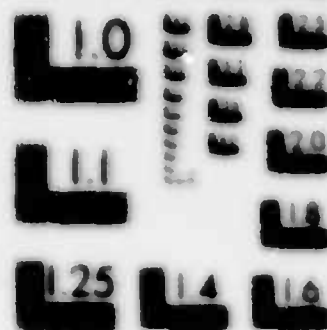
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UNCLASSIFIED

NL







RESOLUTION TEST CHART  
NATIONAL BUREAU OF STANDARDS-1963-A



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DATE	DESCRIPTION	AMOUNT	CHECK NO.	DATE	DESCRIPTION	AMOUNT	CHECK NO.
1970-01-01	INITIAL DEPOSIT	100.00	1001	1970-01-01	INITIAL DEPOSIT	100.00	1001
1970-01-05	PAYROLL	50.00	1002	1970-01-05	PAYROLL	50.00	1002
1970-01-10	RENT	25.00	1003	1970-01-10	RENT	25.00	1003
1970-01-15	UTILITIES	15.00	1004	1970-01-15	UTILITIES	15.00	1004
1970-01-20	FOOD	10.00	1005	1970-01-20	FOOD	10.00	1005
1970-01-25	TRANSPORTATION	20.00	1006	1970-01-25	TRANSPORTATION	20.00	1006
1970-02-01	SALARY	150.00	1007	1970-02-01	SALARY	150.00	1007
1970-02-05	RENT	25.00	1008	1970-02-05	RENT	25.00	1008
1970-02-10	UTILITIES	15.00	1009	1970-02-10	UTILITIES	15.00	1009
1970-02-15	FOOD	10.00	1010	1970-02-15	FOOD	10.00	1010
1970-02-20	TRANSPORTATION	20.00	1011	1970-02-20	TRANSPORTATION	20.00	1011
1970-02-25	SALARY	150.00	1012	1970-02-25	SALARY	150.00	1012
1970-03-01	RENT	25.00	1013	1970-03-01	RENT	25.00	1013
1970-03-05	UTILITIES	15.00	1014	1970-03-05	UTILITIES	15.00	1014
1970-03-10	FOOD	10.00	1015	1970-03-10	FOOD	10.00	1015
1970-03-15	TRANSPORTATION	20.00	1016	1970-03-15	TRANSPORTATION	20.00	1016
1970-03-20	SALARY	150.00	1017	1970-03-20	SALARY	150.00	1017
1970-03-25	RENT	25.00	1018	1970-03-25	RENT	25.00	1018
1970-03-30	UTILITIES	15.00	1019	1970-03-30	UTILITIES	15.00	1019
1970-04-01	FOOD	10.00	1020	1970-04-01	FOOD	10.00	1020
1970-04-05	TRANSPORTATION	20.00	1021	1970-04-05	TRANSPORTATION	20.00	1021
1970-04-10	SALARY	150.00	1022	1970-04-10	SALARY	150.00	1022
1970-04-15	RENT	25.00	1023	1970-04-15	RENT	25.00	1023
1970-04-20	UTILITIES	15.00	1024	1970-04-20	UTILITIES	15.00	1024
1970-04-25	FOOD	10.00	1025	1970-04-25	FOOD	10.00	1025
1970-04-30	TRANSPORTATION	20.00	1026	1970-04-30	TRANSPORTATION	20.00	1026
1970-05-01	SALARY	150.00	1027	1970-05-01	SALARY	150.00	1027
1970-05-05	RENT	25.00	1028	1970-05-05	RENT	25.00	1028
1970-05-10	UTILITIES	15.00	1029	1970-05-10	UTILITIES	15.00	1029
1970-05-15	FOOD	10.00	1030	1970-05-15	FOOD	10.00	1030
1970-05-20	TRANSPORTATION	20.00	1031	1970-05-20	TRANSPORTATION	20.00	1031
1970-05-25	SALARY	150.00	1032	1970-05-25	SALARY	150.00	1032
1970-05-30	RENT	25.00	1033	1970-05-30	RENT	25.00	1033
1970-06-01	UTILITIES	15.00	1034	1970-06-01	UTILITIES	15.00	1034
1970-06-05	FOOD	10.00	1035	1970-06-05	FOOD	10.00	1035
1970-06-10	TRANSPORTATION	20.00	1036	1970-06-10	TRANSPORTATION	20.00	1036
1970-06-15	SALARY	150.00	1037	1970-06-15	SALARY	150.00	1037
1970-06-20	RENT	25.00	1038	1970-06-20	RENT	25.00	1038
1970-06-25	UTILITIES	15.00	1039	1970-06-25	UTILITIES	15.00	1039
1970-06-30	FOOD	10.00	1040	1970-06-30	FOOD	10.00	1040
1970-07-01	TRANSPORTATION	20.00	1041	1970-07-01	TRANSPORTATION	20.00	1041
1970-07-05	SALARY	150.00	1042	1970-07-05	SALARY	150.00	1042
1970-07-10	RENT	25.00	1043	1970-07-10	RENT	25.00	1043
1970-07-15	UTILITIES	15.00	1044	1970-07-15	UTILITIES	15.00	1044
1970-07-20	FOOD	10.00	1045	1970-07-20	FOOD	10.00	1045
1970-07-25	TRANSPORTATION	20.00	1046	1970-07-25	TRANSPORTATION	20.00	1046
1970-07-30	SALARY	150.00	1047	1970-07-30	SALARY	150.00	1047
1970-08-01	RENT	25.00	1048	1970-08-01	RENT	25.00	1048
1970-08-05	UTILITIES	15.00	1049	1970-08-05	UTILITIES	15.00	1049
1970-08-10	FOOD	10.00	1050	1970-08-10	FOOD	10.00	1050
1970-08-15	TRANSPORTATION	20.00	1051	1970-08-15	TRANSPORTATION	20.00	1051
1970-08-20	SALARY	150.00	1052	1970-08-20	SALARY	150.00	1052
1970-08-25	RENT	25.00	1053	1970-08-25	RENT	25.00	1053
1970-08-30	UTILITIES	15.00	1054	1970-08-30	UTILITIES	15.00	1054
1970-09-01	FOOD	10.00	1055	1970-09-01	FOOD	10.00	1055
1970-09-05	TRANSPORTATION	20.00	1056	1970-09-05	TRANSPORTATION	20.00	1056
1970-09-10	SALARY	150.00	1057	1970-09-10	SALARY	150.00	1057
1970-09-15	RENT	25.00	1058	1970-09-15	RENT	25.00	1058
1970-09-20	UTILITIES	15.00	1059	1970-09-20	UTILITIES	15.00	1059
1970-09-25	FOOD	10.00	1060	1970-09-25	FOOD	10.00	1060
1970-09-30	TRANSPORTATION	20.00	1061	1970-09-30	TRANSPORTATION	20.00	1061
1970-10-01	SALARY	150.00	1062	1970-10-01	SALARY	150.00	1062
1970-10-05	RENT	25.00	1063	1970-10-05	RENT	25.00	1063
1970-10-10	UTILITIES	15.00	1064	1970-10-10	UTILITIES	15.00	1064
1970-10-15	FOOD	10.00	1065	1970-10-15	FOOD	10.00	1065
1970-10-20	TRANSPORTATION	20.00	1066	1970-10-20	TRANSPORTATION	20.00	1066
1970-10-25	SALARY	150.00	1067	1970-10-25	SALARY	150.00	1067
1970-10-30	RENT	25.00	1068	1970-10-30	RENT	25.00	1068
1970-11-01	UTILITIES	15.00	1069	1970-11-01	UTILITIES	15.00	1069
1970-11-05	FOOD	10.00	1070	1970-11-05	FOOD	10.00	1070
1970-11-10	TRANSPORTATION	20.00	1071	1970-11-10	TRANSPORTATION	20.00	1071
1970-11-15	SALARY	150.00	1072	1970-11-15	SALARY	150.00	1072
1970-11-20	RENT	25.00	1073	1970-11-20	RENT	25.00	1073
1970-11-25	UTILITIES	15.00	1074	1970-11-25	UTILITIES	15.00	1074
1970-11-30	FOOD	10.00	1075	1970-11-30	FOOD	10.00	1075
1970-12-01	TRANSPORTATION	20.00	1076	1970-12-01	TRANSPORTATION	20.00	1076
1970-12-05	SALARY	150.00	1077	1970-12-05	SALARY	150.00	1077
1970-12-10	RENT	25.00	1078	1970-12-10	RENT	25.00	1078
1970-12-15	UTILITIES	15.00	1079	1970-12-15	UTILITIES	15.00	1079
1970-12-20	FOOD	10.00	1080	1970-12-20	FOOD	10.00	1080
1970-12-25	TRANSPORTATION	20.00	1081	1970-12-25	TRANSPORTATION	20.00	1081
1970-12-30	SALARY	150.00	1082	1970-12-30	SALARY	150.00	1082
1971-01-01	RENT	25.00	1083	1971-01-01	RENT	25.00	1083
1971-01-05	UTILITIES	15.00	1084	1971-01-05	UTILITIES	15.00	1084
1971-01-10	FOOD	10.00	1085	1971-01-10	FOOD	10.00	1085
1971-01-15	TRANSPORTATION	20.00	1086	1971-01-15	TRANSPORTATION	20.00	1086
1971-01-20	SALARY	150.00	1087	1971-01-20	SALARY	150.00	1087
1971-01-25	RENT	25.00	1088	1971-01-25	RENT	25.00	1088
1971-01-30	UTILITIES	15.00	1089	1971-01-30	UTILITIES	15.00	1089
1971-02-01	FOOD	10.00	1090	1971-02-01	FOOD	10.00	1090
1971-02-05	TRANSPORTATION	20.00	1091	1971-02-05	TRANSPORTATION	20.00	1091
1971-02-10	SALARY	150.00	1092	1971-02-10	SALARY	150.00	1092
1971-02-15	RENT	25.00	1093	1971-02-15	RENT	25.00	1093
1971-02-20	UTILITIES	15.00	1094	1971-02-20	UTILITIES	15.00	1094
1971-02-25	FOOD	10.00	1095	1971-02-25	FOOD	10.00	1095
1971-02-28	TRANSPORTATION	20.00	1096	1971-02-28	TRANSPORTATION	20.00	1096
1971-03-01	SALARY	150.00	1097	1971-03-01	SALARY	150.00	1097
1971-03-05	RENT	25.00	1098	1971-03-05	RENT	25.00	1098
1971-03-10	UTILITIES	15.00	1099	1971-03-10	UTILITIES	15.00	1099
1971-03-15	FOOD	10.00	1100	1971-03-15	FOOD	10.00	1100
1971-03-20	TRANSPORTATION	20.00	1101	1971-03-20	TRANSPORTATION	20.00	1101
1971-03-25	SALARY	150.00	1102	1971-03-25	SALARY	150.00	1102
1971-03-30	RENT	25.00	1103	1971-03-30	RENT	25.00	1103
1971-04-01	UTILITIES	15.00	1104	1971-04-01	UTILITIES	15.00	1104
1971-04-05	FOOD	10.00	1105	1971-04-05	FOOD	10.00	1105
1971-04-10	TRANSPORTATION	20.00	1106	1971-04-10	TRANSPORTATION	20.00	1106
1971-04-15	SALARY	150.00	1107	1971-04-15	SALARY	150.00	1107
1971-04-20	RENT	25.00	1108	1971-04-20	RENT	25.00	1108
1971-04-25	UTILITIES	15.00	1109	1971-04-25	UTILITIES	15.00	1109
1971-04-30	FOOD	10.00	1110	1971-04-30	FOOD	10.00	1110
1971-05-01	TRANSPORTATION	20.00	1111	1971-05-01	TRANSPORTATION	20.00	1111
1971-05-05	SALARY	150.00	1112	1971-05-05	SALARY	150.00	1112
1971-05-10	RENT	25.00	1113	1971-05-10	RENT	25.00	1113
1971-05-15	UTILITIES	15.00	1114	1971-05-15	UTILITIES	15.00	1114
1971-05-20	FOOD	10.00	1115	1971-05-20	FOOD	10.00	1115
1971-05-25	TRANSPORTATION	20.00	1116	1971-05-25	TRANSPORTATION	20.00	1116
1971-05-30	SALARY	150.00	1117	1971-05-30	SALARY	150.00	1117
1971-06-01	RENT	25.00	1118	1971-06-01	RENT	25.00	1118
1971-06-05	UTILITIES	15.00	1119	1971-06-05	UTILITIES	15.00	1119
1971-06-10	FOOD	10.00	1120	1971-06-10	FOOD	10.00	1120
1971-06-15	TRANSPORTATION	20.00	1121	1971-06-15	TRANSPORTATION	20.00	1121
1971-06-20	SALARY	150.00	1122	1971-06-20	SALARY	150.00	1122
1971-06-25	RENT	25.00	1123	1971-06-25	RENT	25.00	1123
1971-06-30	UTILITIES	15.00	1124	1971-06-30	UTILITIES	15.00	1124
1971-07-01	FOOD	10.00	1125	1971-07-01	FOOD	10.00	1125
1971-07-05	TRANSPORTATION	20.00	1126	1971-07-05	TRANSPORTATION	20.00	1126
1971-07-10	SALARY	150.00	1127	1971-07-10	SALARY	150.00	1127
1971-07-15	RENT	25.00	1128	1971-07-15	RENT	25.00	1128
1971-07-20	UTILITIES	15.00	1129	1971-07-20	UTILITIES	15.00	1129
1971-07-25	FOOD	10.00	1130	1971-07-25	FOOD	10.00	1130
1971-07-30	TRANSPORTATION	20.00	1131	1971-07-30	TRANSPORTATION	20.00	1131
1971-08-01	SALARY	150.00	1132	1971-08-01	SALARY	150.00	1132
1971-08-05	RENT	25.00	1133	1971-08-05	RENT	25.00	1133
1971-08-10	UTILITIES	15.00	1134	1971-08-10	UTILITIES	15.00	1134
1971-08-15	FOOD	10.00	1135	1971-08-15	FOOD	10.00	1135
1971-08-20	TRANSPORTATION	20.00	1136	1971-08-20	TRANSPORTATION	20.00	1136
1971-08-25	SALARY	150.00	1137	1971-08-25	SALARY	150.00	1137
1971-08-30	RENT	25.00	1138	1971-08-30	RENT	25.00	1138
1971-09-01	UTILITIES	15.00	113				











[illegible]

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1998

1990-1991

[illegible]

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Step 1: Initial Setup			
Parameter	Value	Unit	Notes
Initial Value	10.00	10.00	0.00000
Step 1	10.00	10.00	0.00000
Step 2	10.00	10.00	0.00000
Step 3	10.00	10.00	0.00000
Step 4	10.00	10.00	0.00000
Step 5	10.00	10.00	0.00000
Step 6	10.00	10.00	0.00000
Step 7	10.00	10.00	0.00000
Step 8	10.00	10.00	0.00000
Step 9	10.00	10.00	0.00000
Step 10	10.00	10.00	0.00000

Step 1: Initial Setup			
Parameter	Value	Unit	Notes
Initial Value	10.00	10.00	0.00000
Step 1	10.00	10.00	0.00000
Step 2	10.00	10.00	0.00000
Step 3	10.00	10.00	0.00000
Step 4	10.00	10.00	0.00000
Step 5	10.00	10.00	0.00000
Step 6	10.00	10.00	0.00000
Step 7	10.00	10.00	0.00000
Step 8	10.00	10.00	0.00000
Step 9	10.00	10.00	0.00000
Step 10	10.00	10.00	0.00000

Step 1: Initial Setup			
Parameter	Value	Unit	Notes
Initial Value	10.00	10.00	0.00000
Step 1	10.00	10.00	0.00000
Step 2	10.00	10.00	0.00000
Step 3	10.00	10.00	0.00000
Step 4	10.00	10.00	0.00000
Step 5	10.00	10.00	0.00000
Step 6	10.00	10.00	0.00000
Step 7	10.00	10.00	0.00000
Step 8	10.00	10.00	0.00000
Step 9	10.00	10.00	0.00000
Step 10	10.00	10.00	0.00000

Step 1: Initial Setup			
Parameter	Value	Unit	Notes
Initial Value	10.00	10.00	0.00000
Step 1	10.00	10.00	0.00000
Step 2	10.00	10.00	0.00000
Step 3	10.00	10.00	0.00000
Step 4	10.00	10.00	0.00000
Step 5	10.00	10.00	0.00000
Step 6	10.00	10.00	0.00000
Step 7	10.00	10.00	0.00000
Step 8	10.00	10.00	0.00000
Step 9	10.00	10.00	0.00000
Step 10	10.00	10.00	0.00000







**JACAR**

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1. The first part of the document is a title page. It contains the title of the document, the author's name, and the date of publication.

2. The second part of the document is an abstract. It provides a brief summary of the main findings and conclusions of the study.

3. The third part of the document is the introduction. It discusses the background of the study, the research objectives, and the significance of the research.

4. The fourth part of the document is the methodology. It describes the research design, the data collection methods, and the statistical analysis used.

5. The fifth part of the document is the results. It presents the findings of the study, including the data and the statistical analysis.

6. The sixth part of the document is the discussion. It discusses the implications of the findings, the limitations of the study, and the future research.

7. The seventh part of the document is the conclusion. It summarizes the main findings and conclusions of the study.

8. The eighth part of the document is the references. It lists the sources of information used in the study.

9. The ninth part of the document is the appendix. It contains additional information related to the study, such as raw data or detailed calculations.

10. The tenth part of the document is the index. It provides a list of keywords and their corresponding page numbers.

1. The first part of the document is a title page. It contains the title "The Role of the State in the Development of the Economy" and the author's name "John Doe".

2. The second part of the document is an abstract. It provides a brief summary of the main findings and conclusions of the study.

3. The third part of the document is the introduction. It discusses the importance of the state in the development of the economy and the role of the state in the development of the economy.

4. The fourth part of the document is the main body of the text. It is divided into several sections, each discussing a different aspect of the role of the state in the development of the economy.

5. The fifth part of the document is the conclusion. It summarizes the main findings and conclusions of the study.

6. The sixth part of the document is the bibliography. It lists the sources used in the study.

7. The seventh part of the document is the appendix. It contains additional information related to the study.

8. The eighth part of the document is the index. It provides a list of the topics covered in the document.

9. The ninth part of the document is the table of contents. It provides a list of the pages for each section of the document.

10. The tenth part of the document is the back cover. It contains the title and author's name.

MS 155 (1965) 200-115

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1. *Chlorophyll a* (mg/g)

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Age Group	2003	2004	2005
18-29	~85	~88	~90
30-49	~75	~78	~80
50-69	~65	~68	~70
70+	~55	~58	~60

Age (months)	Male (%)	Female (%)
0	10	10
1	15	15
2	20	20
3	25	25
4	30	30
5	35	35
6	40	40
7	42	42
8	44	44
9	45	45
10	45	45
11	45	45
12	45	45

[illegible]

Figure 1. A schematic diagram of the experimental design. The diagram shows a sequence of events: a subject is presented with a stimulus (a face), then a response is recorded (a button press), and finally, the subject is presented with a feedback (a green or red light). The feedback is based on the subject's response, and the subject's response is based on the stimulus. The diagram also shows the subject's internal state (e.g., attention, motivation) and the experimenter's role (e.g., presenting the stimulus, recording the response, providing feedback).

Figure 1. Schematic representation of the experimental design. The subjects were divided into two groups: the control group (CG) and the experimental group (EG). The CG was divided into two subgroups: the control group (CG) and the control group (CG). The EG was divided into two subgroups: the experimental group (EG) and the experimental group (EG). The subjects were divided into two groups: the control group (CG) and the experimental group (EG). The CG was divided into two subgroups: the control group (CG) and the control group (CG). The EG was divided into two subgroups: the experimental group (EG) and the experimental group (EG).

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**Figure 1**

1. 在 100 个文件中，每个文件包含 100 个数字，每个数字在 1 到 1000 之间。  
 2. 每个文件包含的数字是随机的。  
 3. 每个文件包含的数字的分布是均匀的。  
 4. 每个文件包含的数字的分布是正态分布。  
 5. 每个文件包含的数字的分布是指数分布。  
 6. 每个文件包含的数字的分布是泊松分布。  
 7. 每个文件包含的数字的分布是均匀分布。  
 8. 每个文件包含的数字的分布是正态分布。  
 9. 每个文件包含的数字的分布是指数分布。  
 10. 每个文件包含的数字的分布是泊松分布。

1980年—1984年：1980年—1984年，1985年—1989年，1990年—1994年，1995年—1999年，2000年—2004年，2005年—2009年，2010年—2014年，2015年—2019年，2020年—2024年。



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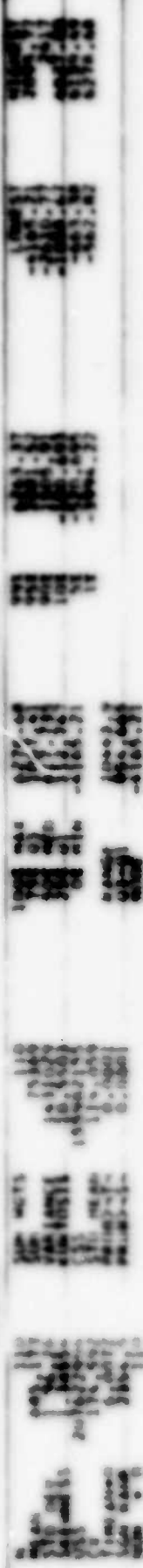
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**019-678-1100**

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City	Year	Population	Area	Population Density
London	1991	7,230,000	1,572	4,599
London	2001	7,530,000	1,572	4,790
London	2011	8,960,000	1,572	5,700
London	2021	10,100,000	1,572	6,425
London	2031	11,200,000	1,572	7,125
London	2041	12,300,000	1,572	7,825
London	2051	13,400,000	1,572	8,525
London	2061	14,500,000	1,572	9,225
London	2071	15,600,000	1,572	9,925
London	2081	16,700,000	1,572	10,625
London	2091	17,800,000	1,572	11,325
London	2101	18,900,000	1,572	12,025
London	2111	20,000,000	1,572	12,725
London	2121	21,100,000	1,572	13,425
London	2131	22,200,000	1,572	14,125
London	2141	23,300,000	1,572	14,825
London	2151	24,400,000	1,572	15,525
London	2161	25,500,000	1,572	16,225
London	2171	26,600,000	1,572	16,925
London	2181	27,700,000	1,572	17,625
London	2191	28,800,000	1,572	18,325
London	2201	29,900,000	1,572	19,025
London	2211	31,000,000	1,572	19,725
London	2221	32,100,000	1,572	20,425
London	2231	33,200,000	1,572	21,125
London	2241	34,300,000	1,572	21,825
London	2251	35,400,000	1,572	22,525
London	2261	36,500,000	1,572	23,225
London	2271	37,600,000	1,572	23,925
London	2281	38,700,000	1,572	24,625
London	2291	39,800,000	1,572	25,325
London	2301	40,900,000	1,572	26,025
London	2311	42,000,000	1,572	26,725
London	2321	43,100,000	1,572	27,425
London	2331	44,200,000	1,572	28,125
London	2341	45,300,000	1,572	28,825
London	2351	46,400,000	1,572	29,525
London	2361	47,500,000	1,572	30,225
London	2371	48,600,000	1,572	30,925
London	2381	49,700,000	1,572	31,625
London	2391	50,800,000	1,572	32,325
London	2401	51,900,000	1,572	33,025
London	2411	53,000,000	1,572	33,725
London	2421	54,100,000	1,572	34,425
London	2431	55,200,000	1,572	35,125
London	2441	56,300,000	1,572	35,825
London	2451	57,400,000	1,572	36,525
London	2461	58,500,000	1,572	37,225
London	2471	59,600,000	1,572	37,925
London	2481	60,700,000	1,572	38,625
London	2491	61,800,000	1,572	39,325
London	2501	62,900,000	1,572	40,025
London	2511	64,000,000	1,572	40,725
London	2521	65,100,000	1,572	41,425
London	2531	66,200,000	1,572	42,125
London	2541	67,300,000	1,572	42,825
London	2551	68,400,000	1,572	43,525
London	2561	69,500,000	1,572	44,225
London	2571	70,600,000	1,572	44,925
London	2581	71,700,000	1,572	45,625
London	2591	72,800,000	1,572	46,325
London	2601	73,900,000	1,572	47,025
London	2611	75,000,000	1,572	47,725
London	2621	76,100,000	1,572	48,425
London	2631</			

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Case	Age	Sex	Site	Pathologic	Survival
1	65	M	Rectum	Adenocarcinoma	10 mo
2	68	M	Rectum	Adenocarcinoma	12 mo
3	70	M	Rectum	Adenocarcinoma	14 mo
4	72	M	Rectum	Adenocarcinoma	16 mo
5	74	M	Rectum	Adenocarcinoma	18 mo
6	76	M	Rectum	Adenocarcinoma	20 mo
7	78	M	Rectum	Adenocarcinoma	22 mo
8	80	M	Rectum	Adenocarcinoma	24 mo
9	82	M	Rectum	Adenocarcinoma	26 mo
10	84	M	Rectum	Adenocarcinoma	28 mo
11	86	M	Rectum	Adenocarcinoma	30 mo
12	88	M	Rectum	Adenocarcinoma	32 mo
13	90	M	Rectum	Adenocarcinoma	34 mo
14	92	M	Rectum	Adenocarcinoma	36 mo
15	94	M	Rectum	Adenocarcinoma	38 mo
16	96	M	Rectum	Adenocarcinoma	40 mo
17	98	M	Rectum	Adenocarcinoma	42 mo
18	100	M	Rectum	Adenocarcinoma	44 mo
19	102	M	Rectum	Adenocarcinoma	46 mo
20	104	M	Rectum	Adenocarcinoma	48 mo
21	106	M	Rectum	Adenocarcinoma	50 mo
22	108	M	Rectum	Adenocarcinoma	52 mo
23	110	M	Rectum	Adenocarcinoma	54 mo
24	112	M	Rectum	Adenocarcinoma	56 mo
25	114	M	Rectum	Adenocarcinoma	58 mo
26	116	M	Rectum	Adenocarcinoma	60 mo
27	118	M	Rectum	Adenocarcinoma	62 mo
28	120	M	Rectum	Adenocarcinoma	64 mo
29	122	M	Rectum	Adenocarcinoma	66 mo
30	124	M	Rectum	Adenocarcinoma	68 mo
31	126	M	Rectum	Adenocarcinoma	70 mo
32	128	M	Rectum	Adenocarcinoma	72 mo
33	130	M	Rectum	Adenocarcinoma	74 mo
34	132	M	Rectum	Adenocarcinoma	76 mo
35	134	M	Rectum	Adenocarcinoma	78 mo
36	136	M	Rectum	Adenocarcinoma	80 mo
37	138	M	Rectum	Adenocarcinoma	82 mo
38	140	M	Rectum	Adenocarcinoma	84 mo
39	142	M	Rectum	Adenocarcinoma	86 mo
40	144	M	Rectum	Adenocarcinoma	88 mo
41	146	M	Rectum	Adenocarcinoma	90 mo
42	148	M	Rectum	Adenocarcinoma	92 mo
43	150	M	Rectum	Adenocarcinoma	94 mo
44	152	M	Rectum	Adenocarcinoma	96 mo
45	154	M	Rectum	Adenocarcinoma	98 mo
46	156	M	Rectum	Adenocarcinoma	100 mo
47	158	M	Rectum	Adenocarcinoma	102 mo
48	160	M	Rectum	Adenocarcinoma	104 mo
49	162	M	Rectum	Adenocarcinoma	106 mo
50	164	M	Rectum	Adenocarcinoma	108 mo
51	166	M	Rectum	Adenocarcinoma	110 mo
52	168	M	Rectum	Adenocarcinoma	112 mo
53	170	M	Rectum	Adenocarcinoma	114 mo
54	172	M	Rectum	Adenocarcinoma	116 mo
55	174	M	Rectum	Adenocarcinoma	118 mo
56	176	M	Rectum	Adenocarcinoma	120 mo
57	178	M	Rectum	Adenocarcinoma	122 mo
58	180	M	Rectum	Adenocarcinoma	124 mo
59	182	M	Rectum	Adenocarcinoma	126 mo
60	184	M	Rectum	Adenocarcinoma	128 mo
61	186	M	Rectum	Adenocarcinoma	130 mo
62	188	M	Rectum	Adenocarcinoma	132 mo
63	190	M	Rectum	Adenocarcinoma	134 mo
64	192	M	Rectum	Adenocarcinoma	136 mo
65	194	M	Rectum	Adenocarcinoma	138 mo
66	196	M	Rectum	Adenocarcinoma	140 mo
67	198	M	Rectum	Adenocarcinoma	142 mo
68	200	M	Rectum	Adenocarcinoma	144 mo
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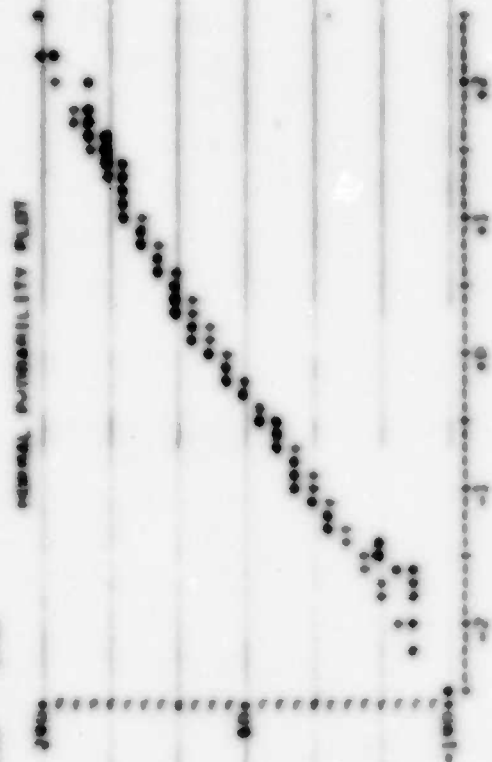
Figure 1. Schematic diagram of the experimental setup. The subject is seated in a chair and views the target through a video camera. The target is a horizontal line on a screen. The subject's hand is positioned at the starting point. The distance between the starting point and the target is 100 cm. The subject is instructed to move the hand to the target as quickly and accurately as possible. The video camera records the hand's position and the time taken to reach the target. The data is then used to calculate the movement time and the error.

Table 1. *Continued*

Figure 1. Schematic representation of the experimental design. The subjects were divided into two groups: the control group and the experimental group. The control group was divided into two subgroups: the control group and the control group. The experimental group was divided into two subgroups: the experimental group and the experimental group. The control group was divided into two subgroups: the control group and the control group. The experimental group was divided into two subgroups: the experimental group and the experimental group.



**Abstract**



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**Figure 1**

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Age Group	1990	1995	2000	2005
0-14	15	14	12	10
15-24	12	11	10	9
25-34	10	9	8	7
35-44	8	7	6	5
45-54	6	5	4	3
55-64	4	3	2	1
65-74	10	11	12	15
75+	2	3	4	5

STANDARD DEVIATION

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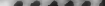
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1. The first step is to identify the problem. This involves understanding the current situation and what needs to be improved.

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11736 • J. Neurosci., July 26, 2006 • 26(30):11730–11736

[illegible]

**Journal of Management Education**

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Figure 1: Schematic representation of the experimental design. The figure shows a 2x6 grid of experimental conditions. The columns are labeled 'Cohort' and 'Cell'. The rows are labeled 'Pre-Test' and 'Post-Test'. The conditions are: Cohort 1, Cell 1; Cohort 1, Cell 2; Cohort 2, Cell 1; Cohort 2, Cell 2; Cohort 3, Cell 1; Cohort 3, Cell 2. Each cell contains a schematic of the experimental design, showing the sequence of events and the timing of the pre-test and post-test.



















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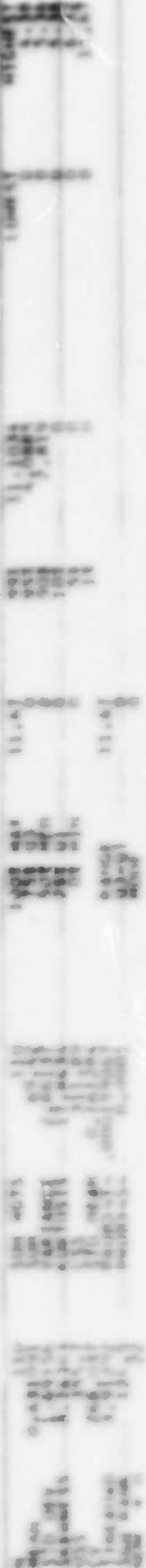
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1. 本報社址：台北市中正區重慶南路一段125號11樓。電話：(02) 2311-2311。

Figure 1 is a schematic diagram of the experimental setup. It shows a subject sitting at a table, looking at a video screen. A camera is positioned above the screen. A target is placed on the table. A horizontal arrow indicates the direction of movement. A vertical arrow indicates the direction of the subject's gaze. A horizontal arrow indicates the direction of the target's movement. A vertical arrow indicates the direction of the target's position. A horizontal arrow indicates the direction of the target's velocity. A vertical arrow indicates the direction of the target's acceleration.

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**Figure 1**



STANDARD METHOD

(INSTRUMENT)

1730 HOURS, 20th 1960

QUANTILE (STANDARD)

PERCENT



MISSING VALUES  
E. COUNT / TOTAL 77.50



FREQUENCY TABLE

PERCENT	MISSING VALUES	PERCENT	MISSING VALUES	PERCENT	MISSING VALUES
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25	25	50	50	75	75
50	50	75	75	100	100



17120 MONDAY, JAN 31 1966 26

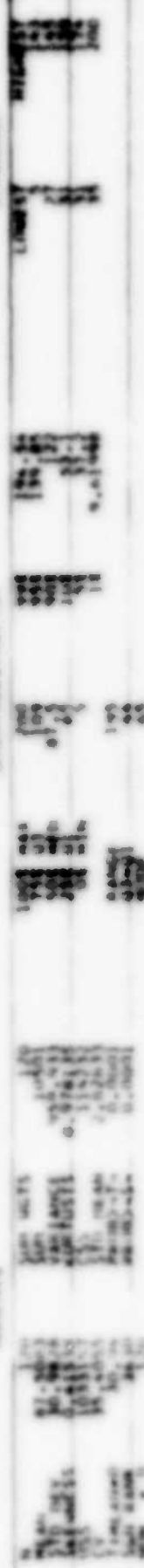
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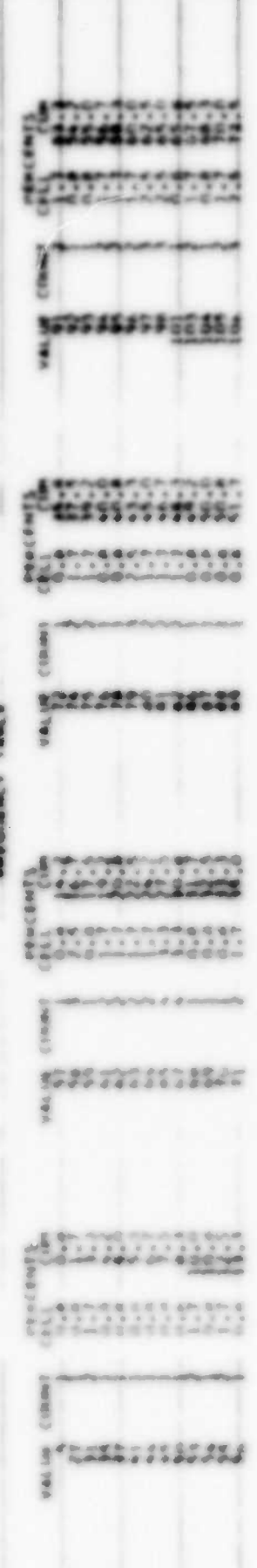
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**Figure 1**

Diagram illustrating the experimental setup for measuring the effect of temperature on the rate of reaction between hydrogen peroxide and potassium iodide.

The diagram shows two test tubes labeled A and B, each containing a solution of hydrogen peroxide and potassium iodide. The test tubes are placed in a water bath maintained at different temperatures. Test tube A is in a water bath at 20°C, and test tube B is in a water bath at 30°C. The reaction mixture in test tube B is shown to react more rapidly than in test tube A, as indicated by the faster appearance of a brown precipitate.

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Figure 1

[illegible]

Cellulose	0	1	2	3	4	5	6	7	8	9	10
Chitin	0	1	2	3	4	5	6	7	8	9	10

[illegible]









**Acknowledgments**

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*The Journal of Law, Economics, & Organization*, V16 N1

**ACKNOWLEDGMENTS**

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1. The first step is to identify the problem or question that needs to be answered. This involves understanding the context and the specific requirements of the task.

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Figure 1. Schematic representation of the experimental design. The figure is divided into four panels, each showing a timeline of events for a subject. The panels are labeled 'Panel A', 'Panel B', 'Panel C', and 'Panel D'. Each panel shows a sequence of events: 'Baseline', 'Training', 'Testing', and 'Transfer'. The 'Baseline' phase is represented by a horizontal line. The 'Training' phase is represented by a series of vertical bars. The 'Testing' phase is represented by a single vertical bar. The 'Transfer' phase is represented by a horizontal line. The 'Training' phase is divided into 'Block' and 'Random' training. The 'Testing' phase is divided into 'Block' and 'Random' testing. The 'Transfer' phase is divided into 'Block' and 'Random' transfer. The 'Training' phase is divided into 'Block' and 'Random' training. The 'Testing' phase is divided into 'Block' and 'Random' testing. The 'Transfer' phase is divided into 'Block' and 'Random' transfer.



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**Figure 1**

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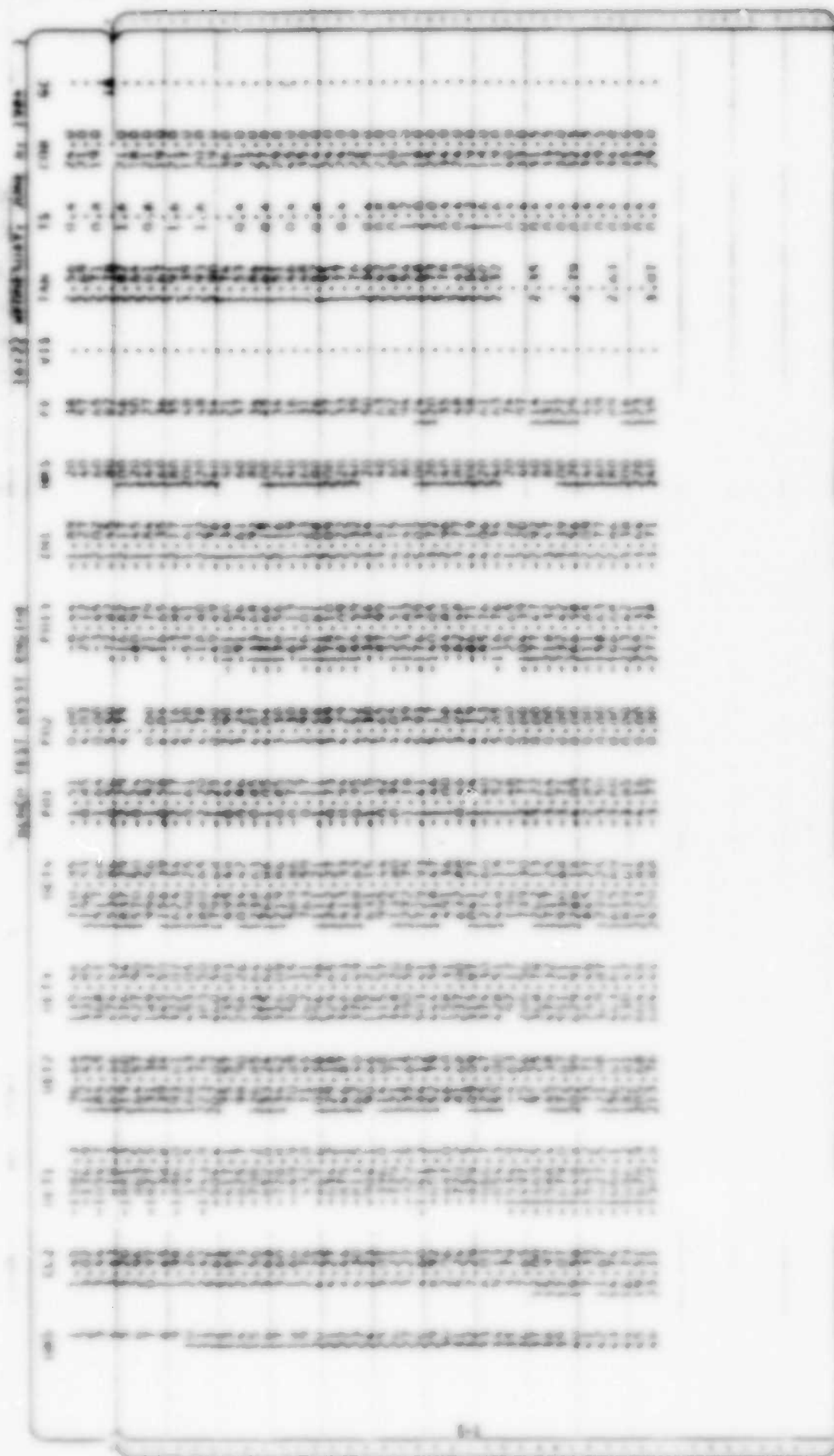




# APPENDIX E 6V-53T BENCH TEST ENGINES

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MEMORANDUM FOR THE RECORD  
 COMMUNICATIONS / MEMORANDUM OF CONVERSATIONS

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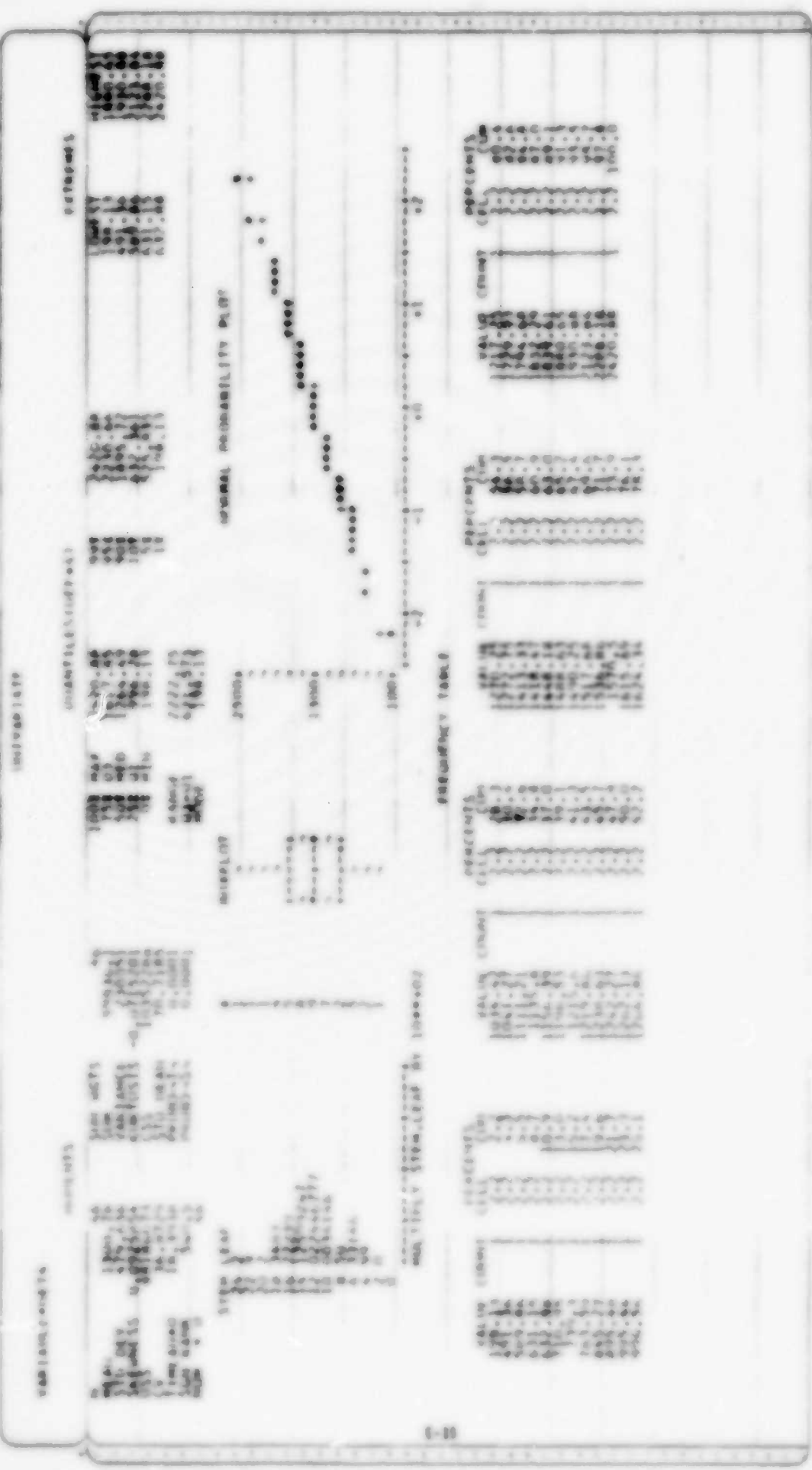






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1. The first part of the text discusses the importance of maintaining accurate records of all transactions, including sales, purchases, and expenses. It emphasizes that proper record-keeping is essential for determining the correct amount of tax liability.

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Year	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099																																																																																																																																																																																																																																						
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Age Group	No (%)	Yes (%)
18-24	65	35
25-34	55	45
35-44	45	55
45-54	35	65
55-64	25	75
65+	15	85

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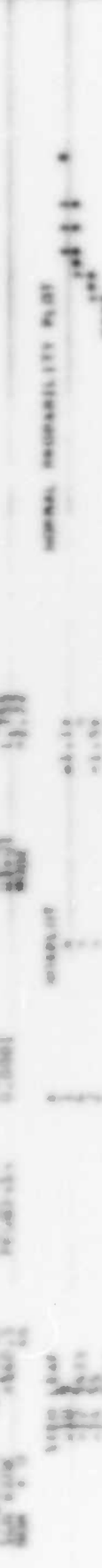
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APPENDIX F  
CUMMINS NTC-400 ENGINE  
52nd ENGINEER BATTALION, FT. CARSON CO.

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F-1	NTC-400 Data	F-1
F-2	Correlation Matrix	F-4
F-3*	Development of Best Model for Viscosity	F-9
F-4*	Development of Best Model for Total Acid Number	F-21
F-5*	Development of Best Model for Total Solids	F-27
F-6*	Development of Best Model for Fuel Dilution (Measured by Gas Chromatograph)	F-31
F-7	Frequency Table and Plot for CL2	F-39
F-8	Frequency Table and Plot for DET 11	F-41
F-9	Frequency Table and Plot for DET 12	F-43
F-10	Frequency Table and Plot for DET 13	F-45
F-11	Frequency Table and Plot for DET 14	F-47
F-12	Frequency Table and Plot for FDI	F-49
F-13	Frequency Table and Plot for FDI	F-51
F-14	Frequency Table and Plot for FDI3	F-53
F-15	Frequency Table and Plot for ZNI	F-55
F-16	Frequency Table and Plot for HWS	F-57
F-17	Frequency Table and Plot for FE	F-59
F-18	Frequency Table and Plot for VIS	F-61
F-19	Frequency Table and Plot for TAN	F-63
F-20	Frequency Table and Plot for TS	F-65
F-21	Frequency Table and Plot for COB	F-67

\* These models were all developed early in the study and are based on a slightly different data collection methodology than that outlined in Table 1.















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*[Faint, illegible handwritten notes or bleed-through from the reverse side of the page.]*

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Figure 1. A schematic diagram of the experimental setup. The subject is seated in a chair, viewing a screen. The screen displays a target (a small circle) and a starting point (a larger circle). The subject's hand is positioned at the starting point. The distance between the starting point and the target is labeled as 'Distance'. The subject is instructed to move their hand from the starting point to the target. The screen also displays a scale from 0 to 100 cm.

*[The page contains faint, illegible markings or bleed-through from the reverse side.]*











DATE	DESCRIPTION	AMOUNT	CHECK NO.	BANK	REMARKS
1912	...	...	...	...	...
1913	...	...	...	...	...
1914	...	...	...	...	...
1915	...	...	...	...	...
1916	...	...	...	...	...
1917	...	...	...	...	...
1918	...	...	...	...	...
1919	...	...	...	...	...
1920	...	...	...	...	...
1921	...	...	...	...	...
1922	...	...	...	...	...
1923	...	...	...	...	...
1924	...	...	...	...	...
1925	...	...	...	...	...
1926	...	...	...	...	...
1927	...	...	...	...	...
1928	...	...	...	...	...
1929	...	...	...	...	...
1930	...	...	...	...	...
1931	...	...	...	...	...
1932	...	...	...	...	...
1933	...	...	...	...	...
1934	...	...	...	...	...
1935	...	...	...	...	...
1936	...	...	...	...	...
1937	...	...	...	...	...
1938	...	...	...	...	...
1939	...	...	...	...	...
1940	...	...	...	...	...
1941	...	...	...	...	...
1942	...	...	...	...	...
1943	...	...	...	...	...
1944	...	...	...	...	...
1945	...	...	...	...	...
1946	...	...	...	...	...
1947	...	...	...	...	...
1948	...	...	...	...	...
1949	...	...	...	...	...
1950	...	...	...	...	...
1951	...	...	...	...	...
1952	...	...	...	...	...
1953	...	...	...	...	...
1954	...	...	...	...	...
1955	...	...	...	...	...
1956	...	...	...	...	...
1957	...	...	...	...	...
1958	...	...	...	...	...
1959	...	...	...	...	...
1960	...	...	...	...	...
1961	...	...	...	...	...
1962	...	...	...	...	...
1963	...	...	...	...	...
1964	...	...	...	...	...
1965	...	...	...	...	...
1966	...	...	...	...	...
1967	...	...	...	...	...
1968	...	...	...	...	...
1969	...	...	...	...	...
1970	...	...	...	...	...
1971	...	...	...	...	...
1972	...	...	...	...	...
1973	...	...	...	...	...
1974	...	...	...	...	...
1975	...	...	...	...	...
1976	...	...	...	...	...
1977	...	...	...	...	...
1978	...	...	...	...	...
1979	...	...	...	...	...
1980	...	...	...	...	...
1981	...	...	...	...	...
1982	...	...	...	...	...
1983	...	...	...	...	...
1984	...	...	...	...	...
1985	...	...	...	...	...
1986	...	...	...	...	...
1987	...	...	...	...	...
1988	...	...	...	...	...
1989	...	...	...	...	...
1990	...	...	...	...	...
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1993	...	...	...	...	...
1994	...	...	...	...	...
1995	...	...	...	...	...
1996	...	...	...	...	...
1997	...	...	...	...	...

Station	Depth	Temperature	Direction	Force	Time	Remarks
1	0	20.0	0	0	10:00	Clear
2	10	18.5	0	0	10:05	Clear
3	20	17.0	0	0	10:10	Clear
4	30	15.5	0	0	10:15	Clear
5	40	14.0	0	0	10:20	Clear
6	50	12.5	0	0	10:25	Clear
7	60	11.0	0	0	10:30	Clear
8	70	9.5	0	0	10:35	Clear
9	80	8.0	0	0	10:40	Clear
10	90	6.5	0	0	10:45	Clear
11	100	5.0	0	0	10:50	Clear
12	110	3.5	0	0	10:55	Clear
13	120	2.0	0	0	11:00	Clear
14	130	0.5	0	0	11:05	Clear
15	140	0.0	0	0	11:10	Clear



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Date: 10/10/2010  
Time: 10:10:10  
User: admin

Table 1: Summary of Data		Table 2: Detailed Data	
ID	Name	ID	Name
1	John Doe	101	John Doe
2	Jane Smith	102	Jane Smith
3	Bob Johnson	103	Bob Johnson
4	Alice Brown	104	Alice Brown
5	Charlie White	105	Charlie White
6	Diana Green	106	Diana Green
7	Frank Black	107	Frank Black
8	Grace King	108	Grace King
9	Henry Lee	109	Henry Lee
10	Ivy Clark	110	Ivy Clark
11	Jack Hall	111	Jack Hall
12	Karen Young	112	Karen Young
13	Liam Scott	113	Liam Scott
14	Mia Adams	114	Mia Adams
15	Noah Baker	115	Noah Baker
16	Olivia Wilson	116	Olivia Wilson
17	Peter Davis	117	Peter Davis
18	Quinn Miller	118	Quinn Miller
19	Rachel Taylor	119	Rachel Taylor
20	Samuel Moore	120	Samuel Moore
21	Tina Hall	121	Tina Hall
22	Victor King	122	Victor King
23	Wendy Lee	123	Wendy Lee
24	Xavier Clark	124	Xavier Clark
25	Yara Hall	125	Yara Hall
26	Zoe King	126	Zoe King
27	Adam Lee	127	Adam Lee
28	Bella Clark	128	Bella Clark
29	Chris Hall	129	Chris Hall
30	Dana King	130	Dana King
31	Ethan Lee	131	Ethan Lee
32	Fiona Clark	132	Fiona Clark
33	Gavin Hall	133	Gavin Hall
34	Hannah King	134	Hannah King
35	Ian Lee	135	Ian Lee
36	Jessica Clark	136	Jessica Clark
37	Kyle Hall	137	Kyle Hall
38	Laura King	138	Laura King
39	Mark Lee	139	Mark Lee
40	Nancy Clark	140	Nancy Clark
41	Oscar Hall	141	Oscar Hall
42	Pamela King	142	Pamela King
43	Quinn Lee	143	Quinn Lee
44	Rachel Clark	144	Rachel Clark
45	Samuel Hall	145	Samuel Hall
46	Tina King	146	Tina King
47	Victor Lee	147	Victor Lee
48	Wendy Clark	148	Wendy Clark
49	Xavier Hall	149	Xavier Hall
50	Yara King	150	Yara King

Table 3: Summary of Data		Table 4: Detailed Data	
ID	Name	ID	Name
1	John Doe	201	John Doe
2	Jane Smith	202	Jane Smith
3	Bob Johnson	203	Bob Johnson
4	Alice Brown	204	Alice Brown
5	Charlie White	205	Charlie White
6	Diana Green	206	Diana Green
7	Frank Black	207	Frank Black
8	Grace King	208	Grace King
9	Henry Lee	209	Henry Lee
10	Ivy Clark	210	Ivy Clark
11	Jack Hall	211	Jack Hall
12	Karen Young	212	Karen Young
13	Liam Scott	213	Liam Scott
14	Mia Adams	214	Mia Adams
15	Noah Baker	215	Noah Baker
16	Olivia Wilson	216	Olivia Wilson
17	Peter Davis	217	Peter Davis
18	Quinn Miller	218	Quinn Miller
19	Rachel Taylor	219	Rachel Taylor
20	Samuel Moore	220	Samuel Moore
21	Tina Hall	221	Tina Hall
22	Victor King	222	Victor King
23	Wendy Lee	223	Wendy Lee
24	Xavier Clark	224	Xavier Clark
25	Yara Hall	225	Yara Hall
26	Zoe King	226	Zoe King
27	Adam Lee	227	Adam Lee
28	Bella Clark	228	Bella Clark
29	Chris Hall	229	Chris Hall
30	Dana King	230	Dana King
31	Ethan Lee	231	Ethan Lee
32	Fiona Clark	232	Fiona Clark
33	Gavin Hall	233	Gavin Hall
34	Hannah King	234	Hannah King
35	Ian Lee	235	Ian Lee
36	Jessica Clark	236	Jessica Clark
37	Kyle Hall	237	Kyle Hall
38	Laura King	238	Laura King
39	Mark Lee	239	Mark Lee
40	Nancy Clark	240	Nancy Clark
41	Oscar Hall	241	Oscar Hall
42	Pamela King	242	Pamela King
43	Quinn Lee	243	Quinn Lee
44	Rachel Clark	244	Rachel Clark
45	Samuel Hall	245	Samuel Hall
46	Tina King	246	Tina King
47	Victor Lee	247	Victor Lee
48	Wendy Clark	248	Wendy Clark
49	Xavier Hall	249	Xavier Hall
50	Yara King	250	Yara King



DATE	DESCRIPTION	AMOUNT	CHECK NO.	BANK	INTEREST	TOTAL
1950-01-01	INITIAL DEPOSIT	100.00		WELLS FARGO		100.00
1950-01-15	PAYROLL	50.00	101	WELLS FARGO		150.00
1950-02-01	RENT	25.00	102	WELLS FARGO		175.00
1950-02-15	PAYROLL	50.00	103	WELLS FARGO		225.00
1950-03-01	RENT	25.00	104	WELLS FARGO		250.00
1950-03-15	PAYROLL	50.00	105	WELLS FARGO		300.00
1950-04-01	RENT	25.00	106	WELLS FARGO		325.00
1950-04-15	PAYROLL	50.00	107	WELLS FARGO		375.00
1950-05-01	RENT	25.00	108	WELLS FARGO		400.00
1950-05-15	PAYROLL	50.00	109	WELLS FARGO		450.00
1950-06-01	RENT	25.00	110	WELLS FARGO		475.00
1950-06-15	PAYROLL	50.00	111	WELLS FARGO		525.00
1950-07-01	RENT	25.00	112	WELLS FARGO		550.00
1950-07-15	PAYROLL	50.00	113	WELLS FARGO		600.00
1950-08-01	RENT	25.00	114	WELLS FARGO		625.00
1950-08-15	PAYROLL	50.00	115	WELLS FARGO		675.00
1950-09-01	RENT	25.00	116	WELLS FARGO		700.00
1950-09-15	PAYROLL	50.00	117	WELLS FARGO		750.00
1950-10-01	RENT	25.00	118	WELLS FARGO		775.00
1950-10-15	PAYROLL	50.00	119	WELLS FARGO		825.00
1950-11-01	RENT	25.00	120	WELLS FARGO		850.00
1950-11-15	PAYROLL	50.00	121	WELLS FARGO		900.00
1950-12-01	RENT	25.00	122	WELLS FARGO		925.00
1950-12-15	PAYROLL	50.00	123	WELLS FARGO		975.00
1951-01-01	RENT	25.00	124	WELLS FARGO		1000.00



































DATE	DESCRIPTION	AMOUNT	BALANCE
1911	...	...	...
1912	...	...	...
1913	...	...	...
1914	...	...	...
1915	...	...	...
1916	...	...	...
1917	...	...	...
1918	...	...	...
1919	...	...	...
1920	...	...	...
1921	...	...	...
1922	...	...	...
1923	...	...	...
1924	...	...	...
1925	...	...	...
1926	...	...	...
1927	...	...	...
1928	...	...	...
1929	...	...	...
1930	...	...	...



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100

姓名	性别	年龄	籍贯	职业	住址	电话	备注
王德胜	男	45	山东	教师	北京路123号	12345678	
李小红	女	32	江苏	医生	文化路456号	87654321	
张小明	男	28	浙江	工程师	建设路789号	98765432	
赵大伟	男	50	河南	工人	工业路101号	11223344	
陈丽娟	女	38	四川	会计	商业路202号	22334455	
刘国强	男	42	湖北	干部	行政路303号	33445566	
孙文娟	女	35	广东	护士	医疗路404号	44556677	
周志远	男	55	湖南	农民	农村路505号	55667788	
吴小芳	女	25	安徽	学生	学校路606号	66778899	
郑大刚	男	48	江西	商人	市场路707号	77889900	
黄娟娟	女	30	福建	职员	公司路808号	88990011	
徐志强	男	40	广西	司机	交通路909号	99001122	
马小梅	女	22	海南	服务员	酒店路1010号	10101010	
周大平	男	52	贵州	工人	工厂路1111号	11111111	
李小红	女	33	云南	教师	学校路1212号	12121212	
张小明	男	27	陕西	学生	大学路1313号	13131313	
赵大伟	男	49	甘肃	干部	政府路1414号	14141414	
陈丽娟	女	37	宁夏	会计	银行路1515号	15151515	
刘国强	男	41	青海	工人	企业路1616号	16161616	
孙文娟	女	34	新疆	护士	医院路1717号	17171717	
周志远	男	54	内蒙古	农民	农村路1818号	18181818	
吴小芳	女	24	吉林	学生	学校路1919号	19191919	
郑大刚	男	47	辽宁	商人	市场路2020号	20202020	
黄娟娟	女	29	黑龙江	职员	公司路2121号	21212121	
徐志强	男	39	河北	司机	交通路2222号	22222222	
马小梅	女	21	山西	服务员	酒店路2323号	23232323	
周大平	男	51	山东	工人	工厂路2424号	24242424	
李小红	女	31	江苏	教师	学校路2525号	25252525	
张小明	男	26	浙江	学生	大学路2626号	26262626	
赵大伟	男	46	河南	干部	政府路2727号	27272727	
陈丽娟	女	36	湖北	会计	银行路2828号	28282828	
刘国强	男	43	四川	工人	企业路2929号	29292929	
孙文娟	女	33	广东	护士	医院路3030号	30303030	
周志远	男	53	湖南	农民	农村路3131号	31313131	
吴小芳	女	23	安徽	学生	学校路3232号	32323232	
郑大刚	男	44	江西	商人	市场路3333号	33333333	
黄娟娟	女	28	福建	职员	公司路3434号	34343434	
徐志强	男	38	广西	司机	交通路3535号	35353535	
马小梅	女	20	海南	服务员	酒店路3636号	36363636	
周大平	男	50	贵州	工人	工厂路3737号	37373737	
李小红	女	30	云南	教师	学校路3838号	38383838	
张小明	男	25	陕西	学生	大学路3939号	39393939	
赵大伟	男	45	甘肃	干部	政府路4040号	40404040	
陈丽娟	女	35	宁夏	会计	银行路4141号	41414141	
刘国强	男	40	青海	工人	企业路4242号	42424242	
孙文娟	女	32	新疆	护士	医院路4343号	43434343	
周志远	男	52	内蒙古	农民	农村路4444号	44444444	
吴小芳	女	22	吉林	学生	学校路4545号	45454545	
郑大刚	男	47	辽宁	商人	市场路4646号	46464646	
黄娟娟	女	27	黑龙江	职员	公司路4747号	47474747	
徐志强	男	37	河北	司机	交通路4848号	48484848	
马小梅	女	19	山西	服务员	酒店路4949号	49494949	
周大平	男	49	山东	工人	工厂路5050号	50505050	



項目	単位	数値	単位	数値
1. 総人口	人	1,234,567	2. 男性人口	612,345
3. 女性人口	622,222	4. 0歳人口	12,345	
5. 1歳人口	11,234	6. 2歳人口	10,123	
7. 3歳人口	9,012	8. 4歳人口	8,901	
9. 5歳人口	7,890	10. 6歳人口	6,789	
11. 7歳人口	5,678	12. 8歳人口	4,567	
13. 9歳人口	3,456	14. 10歳人口	2,345	
15. 11歳人口	1,234	16. 12歳人口	1,123	
17. 13歳人口	1,012	18. 14歳人口	901	
19. 15歳人口	890	20. 16歳人口	789	
21. 17歳人口	678	22. 18歳人口	567	
23. 19歳人口	456	24. 20歳人口	345	
25. 21歳人口	234	26. 22歳人口	123	
27. 23歳人口	112	28. 24歳人口	101	
29. 25歳人口	90	30. 26歳人口	78	
31. 27歳人口	67	32. 28歳人口	56	
33. 29歳人口	45	34. 30歳人口	34	
35. 31歳人口	23	36. 32歳人口	12	
37. 33歳人口	11	38. 34歳人口	10	
39. 35歳人口	9	40. 36歳人口	7	
41. 37歳人口	6	42. 38歳人口	5	
43. 39歳人口	4	44. 40歳人口	3	
45. 41歳人口	2	46. 42歳人口	1	
47. 43歳人口	1	48. 44歳人口	1	
49. 45歳人口	1	50. 46歳人口	1	
51. 47歳人口	1	52. 48歳人口	1	
53. 49歳人口	1	54. 50歳人口	1	
55. 51歳人口	1	56. 52歳人口	1	
57. 53歳人口	1	58. 54歳人口	1	
59. 55歳人口	1	60. 56歳人口	1	
61. 57歳人口	1	62. 58歳人口	1	
63. 59歳人口	1	64. 60歳人口	1	
65. 61歳人口	1	66. 62歳人口	1	
67. 63歳人口	1	68. 64歳人口	1	
69. 65歳人口	1	70. 66歳人口	1	
71. 67歳人口	1	72. 68歳人口	1	
73. 69歳人口	1	74. 70歳人口	1	
75. 71歳人口	1	76. 72歳人口	1	
77. 73歳人口	1	78. 74歳人口	1	
79. 75歳人口	1	80. 76歳人口	1	
81. 77歳人口	1	82. 78歳人口	1	
83. 79歳人口	1	84. 80歳人口	1	
85. 81歳人口	1	86. 82歳人口	1	
87. 83歳人口	1	88. 84歳人口	1	
89. 85歳人口	1	90. 86歳人口	1	
91. 87歳人口	1	92. 88歳人口	1	
93. 89歳人口	1	94. 90歳人口	1	
95. 91歳人口	1	96. 92歳人口	1	
97. 93歳人口	1	98. 94歳人口	1	
99. 95歳人口	1	100. 96歳人口	1	
101. 97歳人口	1	102. 98歳人口	1	
103. 99歳人口	1	104. 100歳人口	1	

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Figure 3. Validation of the VEGF antibody.

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Year	Number of cases	Number of deaths
1990	100	10
1991	120	12
1992	150	15
1993	180	18
1994	200	20
1995	220	22
1996	250	25
1997	280	28
1998	300	30
1999	320	32
2000	350	35
2001	380	38
2002	400	40
2003	420	42
2004	450	45
2005	480	48
2006	500	50
2007	520	52
2008	550	55
2009	580	58
2010	600	60
2011	620	62
2012	650	65
2013	680	68
2014	700	70
2015	720	72
2016	750	75
2017	780	78
2018	800	80
2019	820	82
2020	850	85
2021	880	88
2022	900	90
2023	920	92
2024	950	95
2025	980	98
2026	1000	100
2027	1020	102
2028	1050	105
2029	1080	108
2030	1100	110

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**Abstract**

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THE ABOVE MATERIAL IS THE PROPERTY OF VARIOUS FEDERAL AGENCIES.

[illegible]
$$x = 520000000 = 0.52 \times 10^9$$
[illegible]

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105 11 95

[illegible][illegible]

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THE ABOVE METHOD IS THE BEST AVAILABLE METHOD.

Case	Year	Number of cases	Number of deaths
1	1998	1	0
2	1999	1	0
3	2000	1	0
4	2001	1	0
5	2002	1	0
6	2003	1	0
7	2004	1	0
8	2005	1	0
9	2006	1	0
10	2007	1	0
11	2008	1	0
12	2009	1	0
13	2010	1	0
14	2011	1	0
15	2012	1	0
16	2013	1	0
17	2014	1	0
18	2015	1	0
19	2016	1	0
20	2017	1	0
21	2018	1	0
22	2019	1	0
23	2020	1	0
24	2021	1	0
25	2022	1	0
26	2023	1	0
27	2024	1	0
28	2025	1	0
29	2026	1	0
30	2027	1	0
31	2028	1	0
32	2029	1	0
33	2030	1	0
34	2031	1	0
35	2032	1	0
36	2033	1	0
37	2034	1	0
38	2035	1	0
39	2036	1	0
40	2037	1	0
41	2038	1	0
42	2039	1	0
43	2040	1	0
44	2041	1	0
45	2042	1	0
46	2043	1	0
47	2044	1	0
48	2045	1	0
49	2046	1	0
50	2047	1	0
51	2048	1	0
52	2049	1	0
53	2050	1	0
54	2051	1	0
55	2052	1	0
56	2053	1	0
57	2054	1	0
58	2055	1	0
59	2056	1	0
60	2057	1	0
61	2058	1	0
62	2059	1	0
63	2060	1	0
64	2061	1	0
65	2062	1	0
66	2063	1	0
67	2064	1	0
68	2065	1	0
69	2066	1	0
70	2067	1	0
71	2068	1	0
72	2069	1	0
73	2070	1	0
74	2071	1	0
75	2072	1	0
76	2073	1	0
77	2074	1	0
78	2075	1	0
79	2076	1	0
80	2077	1	0
81	2078	1	0
82	2079	1	0
83	2080	1	0
84	2081	1	0
85	2082	1	0
86	2083	1	0
87	2084	1	0
88	2085	1	0
89	2086	1	0
90	2087	1	0
91	2088	1	0
92	2089	1	0
93	2090	1	0
94	2091	1	0
95	2092	1	0
96	2093	1	0
97	2094	1	0
98	2095	1	0
99	2096	1	0
100	2097	1	0
101	2098	1	0
102	2099	1	0
103	2100	1	0
104	2101	1	

[illegible]

Year	Number of cases	Number of deaths
1990	10	0
1991	15	0
1992	20	0
1993	25	0
1994	30	0
1995	35	0
1996	40	0
1997	45	0
1998	50	0
1999	55	0
2000	60	0
2001	65	0
2002	70	0
2003	75	0
2004	80	0
2005	85	0
2006	90	0
2007	95	0
2008	100	0
2009	105	0
2010	110	0
2011	115	0
2012	120	0
2013	125	0
2014	130	0
2015	135	0
2016	140	0
2017	145	0
2018	150	0
2019	155	0
2020	160	0
2021	165	0
2022	170	0
2023	175	0
2024	180	0
2025	185	0
2026	190	0
2027	195	0
2028	200	0
2029	205	0
2030	210	0
2031	215	0
2032	220	0
2033	225	0
2034	230	0
2035	235	0
2036	240	0
2037	245	0
2038	250	0
2039	255	0
2040	260	0
2041	265	0
2042	270	0
2043	275	0
2044	280	0
2045	285	0
2046	290	0
2047	295	0
2048	300	0
2049	305	0
2050	310	0
2051	315	0
2052	320	0
2053	325	0
2054	330	0
2055	335	0
2056	340	0
2057	345	0
2058	350	0
2059	355	0
2060	360	0
2061	365	0
2062	370	0
2063	375	0
2064	380	0
2065	385	0
2066	390	0
2067	395	0
2068	400	0
2069	405	0
2070	410	0
2071	415	0
2072	420	0
2073	425	0
2074	430	0
2075	435	0
2076	440	0
2077	445	0
2078	450	0
2079	455	0
2080	460	0
2081	465	0
2082	470	0
2083	475	0
2084	480	0
2085	485	0
2086	490	0
2087	495	0
2088	500	0
2089	505	0
2090	510	0
2091	515	0
2092	520	0
2093	525	0
2094	530	0
2095	535	0
2096	540	0
2097	545	0
2098	550	0
2099	555	0
2100	560	0

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**Abstract**

[illegible]

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THE ABOVE METHOD IS THE BEST AVAILABLE METHOD.















STEP 0		STEP 1		STEP 2		STEP 3		STEP 4		STEP 5		STEP 6		STEP 7		STEP 8		STEP 9		STEP 10		STEP 11		STEP 12		STEP 13		STEP 14		STEP 15		STEP 16		STEP 17		STEP 18		STEP 19		STEP 20		STEP 21		STEP 22		STEP 23		STEP 24		STEP 25		STEP 26		STEP 27		STEP 28		STEP 29		STEP 30		STEP 31		STEP 32		STEP 33		STEP 34		STEP 35		STEP 36		STEP 37		STEP 38		STEP 39		STEP 40		STEP 41		STEP 42		STEP 43		STEP 44		STEP 45		STEP 46		STEP 47		STEP 48		STEP 49		STEP 50		STEP 51		STEP 52		STEP 53		STEP 54		STEP 55		STEP 56		STEP 57		STEP 58		STEP 59		STEP 60		STEP 61		STEP 62		STEP 63		STEP 64		STEP 65		STEP 66		STEP 67		STEP 68		STEP 69		STEP 70		STEP 71		STEP 72		STEP 73		STEP 74		STEP 75		STEP 76		STEP 77		STEP 78		STEP 79		STEP 80		STEP 81		STEP 82		STEP 83		STEP 84		STEP 85		STEP 86		STEP 87		STEP 88		STEP 89		STEP 90		STEP 91		STEP 92		STEP 93		STEP 94		STEP 95		STEP 96		STEP 97		STEP 98		STEP 99		STEP 100		STEP 101		STEP 102		STEP 103		STEP 104		STEP 105		STEP 106		STEP 107		STEP 108		STEP 109		STEP 110		STEP 111		STEP 112		STEP 113		STEP 114		STEP 115		STEP 116		STEP 117		STEP 118		STEP 119		STEP 120		STEP 121		STEP 122		STEP 123		STEP 124		STEP 125		STEP 126		STEP 127		STEP 128		STEP 129		STEP 130		STEP 131		STEP 132		STEP 133		STEP 134		STEP 135		STEP 136		STEP 137		STEP 138		STEP 139		STEP 140		STEP 141		STEP 142		STEP 143		STEP 144		STEP 145		STEP 146		STEP 147		STEP 148		STEP 149		STEP 150		STEP 151		STEP 152		STEP 153		STEP 154		STEP 155		STEP 156		STEP 157		STEP 158		STEP 159		STEP 160		STEP 161		STEP 162		STEP 163		STEP 164		STEP 165		STEP 166		STEP 167		STEP 168		STEP 169		STEP 170		STEP 171		STEP 172		STEP 173		STEP 174		STEP 175		STEP 176		STEP 177		STEP 178		STEP 179		STEP 180		STEP 181		STEP 182		STEP 183		STEP 184		STEP 185		STEP 186		STEP 187		STEP 188		STEP 189		STEP 190		STEP 191		STEP 192		STEP 193		STEP 194		STEP 195		STEP 196		STEP 197		STEP 198		STEP 199		STEP 200		STEP 201		STEP 202		STEP 203		STEP 204		STEP 205		STEP 206		STEP 207		STEP 208		STEP 209		STEP 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410		STEP 411		STEP 412		STEP 413		STEP 414		STEP 415		STEP 416		STEP 417		STEP 418		STEP 419		STEP 420		STEP 421		STEP 422		STEP 423		STEP 424		STEP 425		STEP 426		STEP 427		STEP 428		STEP 429		STEP 430		STEP 431		STEP 432		STEP 433		STEP 434		STEP 435		STEP 436		STEP 437		STEP 438		STEP 439		STEP 440		STEP 441		STEP 442		STEP 443		STEP 444		STEP 445		STEP 446		STEP 447		STEP 448		STEP 449		STEP 450		STEP 451		STEP 452		STEP 453		STEP 454		STEP 455		STEP 456		STEP 457		STEP 458		STEP 459		STEP 460		STEP 461		STEP 462		STEP 463		STEP 464		STEP 465		STEP 466		STEP 467		STEP 468		STEP 469		STEP 470		STEP 471		STEP 472		STEP 473		STEP 474		STEP 475		STEP 476		STEP 477		STEP 478		STEP 479		STEP 480		STEP 481		STEP 482		STEP 483		STEP 484		STEP 485		STEP 486		STEP 487		STEP 488		STEP 489		STEP 490		STEP 491		STEP 492		STEP 493		STEP 494		STEP 495		STEP 496		STEP 497		STEP 498		STEP 499		STEP 500		STEP 501		STEP 502		STEP 503		STEP 504		STEP 505		STEP 506		STEP 507		STEP 508		STEP 509		STEP 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UNITED STATES DEPARTMENT OF AGRICULTURE

OFFICE OF THE SECRETARY

WASHINGTON, D. C.

REPORT

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EVALUATION OF USED CRANKCASE OILS USING COMPUTERIZED  
INFRARED SPECTROMETR. (U) JOINT OIL ANALYSIS PROGRAM  
PENSACOLA FL TECHNICAL SUPPORT CEN. B B MCCA ET AL.

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MICROCOPY RESOLUTION TEST CHART  
NATIONAL BUREAU OF STANDARDS-1963-A



ENGINE NTC-400

2015 MONDAY, JUNE 4, 1984

UNIVARIATE

VARIABLE=CL2

FREQUENCY TABLE (CONT.)

VALUE	COUNT	PERCENTS CELL	CUM	VALUE	COUNT	PERCENTS CELL	CUM	VALUE	COUNT	PERCENTS CELL	CUM	VALUE	COUNT	PERCENTS CELL	CUM
2.72	2	1.4	60.6	6.73	1	0.7	83.1	9.16	1	0.7	93.0	10.05	1	0.7	93.7
2.75	2	1.4	62.0	7.07	1	0.7	84.5	11.04	1	0.7	94.4	11.19	1	0.7	95.1
2.84	2	1.4	64.5	7.45	1	0.7	85.2	11.34	1	0.7	95.8	11.56	1	0.7	96.5
3.05	2	1.4	65.9	8.07	1	0.7	86.9	11.73	1	0.7	97.2	11.67	1	0.7	97.9
3.25	1	0.7	67.2	8.47	1	0.7	87.7	11.84	1	0.7	98.5	11.84	1	0.7	99.2
3.31	1	0.7	67.9	8.51	1	0.7	88.0	11.84	1	0.7	99.2	66.84	1	0.7	100.0
3.39	1	0.7	69.0	8.82	1	0.7	89.7								
3.62	1	0.7	70.4	8.89	1	0.7	90.4								







2015 MONDAY, JUNE 4, 1984

ENGINE NTC-400

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FREQUENCY TABLE (CONT.)

VARIABLE=DET1

VALUE	COUNT	PERCENTS CELL	CUM	VALUE	COUNT	PERCENTS CELL	CUM	VALUE	COUNT	PERCENTS CELL	CUM	VALUE	COUNT	PERCENTS CELL	CUM
427.27	1	0.7	48.6	921.13	1	0.7	75.4	1732.47	1	0.7	89.4	1732.47	1	0.7	89.4
429.5	1	0.7	49.3	1051.13	1	0.7	76.1	1764.12	1	0.7	90.1	1764.12	1	0.7	90.1
435.27	1	0.7	50.0	1064.67	1	0.7	76.8	1809.01	1	0.7	90.8	1809.01	1	0.7	90.8
442.13	1	0.7	50.7	1070.58	1	0.7	77.5	1833.01	1	0.7	91.5	1833.01	1	0.7	91.5
471.55	1	0.7	51.4	1075.83	1	0.7	78.2	1876.6	1	0.7	92.2	1876.6	1	0.7	92.2
476.18	1	0.7	52.1	1099.2	1	0.7	78.9	1976.6	1	0.7	92.9	1976.6	1	0.7	92.9
484.18	1	0.7	52.8	1186.7	1	0.7	79.6	2238.6	1	0.7	93.6	2238.6	1	0.7	93.6
511.43	1	0.7	53.5	1227.9	1	0.7	80.3	2298.6	1	0.7	94.3	2298.6	1	0.7	94.3
520.8	1	0.7	54.2	1319.2	1	0.7	81.0	2375.3	1	0.7	95.0	2375.3	1	0.7	95.0
552.08	1	0.7	54.9	1331.9	1	0.7	81.7	2415.3	1	0.7	95.7	2415.3	1	0.7	95.7
588.1	1	0.7	55.6	1356.3	1	0.7	82.4	2495.3	1	0.7	96.4	2495.3	1	0.7	96.4
610.81	1	0.7	56.3	1559.1	1	0.7	83.1	2549.8	1	0.7	97.1	2549.8	1	0.7	97.1
641.31	1	0.7	57.0	1592.1	1	0.7	83.8	2607.02	1	0.7	97.8	2607.02	1	0.7	97.8
642.42	1	0.7	61.3	1651.1	1	0.7	84.5	7207.02	1	0.7	98.5	7207.02	1	0.7	98.5



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UNIVARIATE

VARIABLE=DET2

MOMENTS

MEAN 142  
STD DEV 147.193  
SKEWNESS 154.161  
KURTOSIS 144.653  
USS 6427514  
CV 104.734  
T-MEAN=0  
SGN-RANK 11.3778  
NUH 4486.5

QUANTILES(DEF=4)

100% MAX 953.22  
50% Q3 229.58  
25% Q1 121.87  
0% MIN -51.95  
RANGE 1058.15  
Q3-Q1 177.63  
MODE 117.63

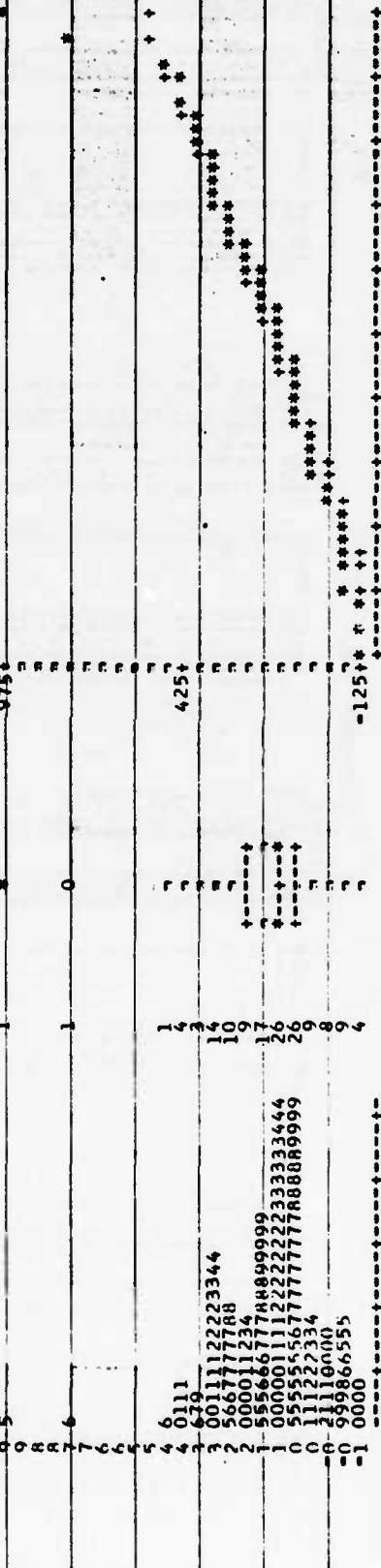
EXTREMES

LOWEST 969.897  
HIGHEST 953.22  
-103.23  
-103.23  
-103.23  
-93.24  
-93.24

NORMAL PROBABILITY PLOT

BOXPLOT

STEM LEAF



FREQUENCY TABLE

VALUE	COUNT	PERCENTS	CUM	VALUE	COUNT	PERCENTS	CUM
-104.93	1	0.7	0.7	50.33	1	0.7	23.9
-103.24	1	0.7	1.4	51.92	1	0.7	24.6
-102.53	1	0.7	2.1	52.39	1	0.7	25.4
-99.23	1	0.7	2.8	53.43	1	0.7	26.1
-88.33	1	0.7	3.5	55.07	1	0.7	26.8
-86.03	1	0.7	4.2	57.77	1	0.7	27.5
-81.97	1	0.7	4.9	59.07	1	0.7	28.2
-97.05	1	0.7	5.6	60.27	1	0.7	28.9
-27.05	1	0.7	6.3	70.29	1	0.7	29.6
-54.67	1	0.7	7.0	70.46	1	0.7	30.3



## UNIVARIATE

VARIABLE=NET2

FREQUENCY TABLE (COUNT.)

VALUE	COUNT	PERCENTS CELL	CUM	VALUE	COUNT	PERCENTS CELL	CUM	VALUE	COUNT	PERCENTS CELL	CUM	VALUE	COUNT	PERCENTS CELL	CUM
70.57	1	0.7	31.7	120.87	1	0.7	50.0	188.23	1	0.7	61.6	305.05	1	0.7	85.2
73.88	1	0.7	33.3	122.88	1	0.7	51.1	188.89	1	0.7	62.3	305.63	1	0.7	85.9
74.87	1	0.7	34.0	124.42	1	0.7	51.8	190.66	1	0.7	63.0	311.37	1	0.7	86.6
80.17	1	0.7	34.7	126.12	1	0.7	52.5	192.61	1	0.7	63.7	311.97	1	0.7	87.3
81.63	1	0.7	35.4	128.63	1	0.7	53.2	201.41	1	0.7	64.4	312.57	1	0.7	88.0
82.68	1	0.7	36.1	131.93	1	0.7	53.9	202.41	1	0.7	65.1	313.17	1	0.7	88.7
83.68	1	0.7	36.8	134.30	1	0.7	54.6	204.41	1	0.7	65.8	313.77	1	0.7	89.4
89.13	1	0.7	37.5	137.03	1	0.7	55.3	205.41	1	0.7	66.5	314.37	1	0.7	90.1
90.13	1	0.7	38.2	139.39	1	0.7	56.0	211.41	1	0.7	67.2	314.97	1	0.7	90.8
94.97	1	0.7	38.9	139.84	1	0.7	56.7	212.41	1	0.7	67.9	315.57	1	0.7	91.5
95.51	1	0.7	39.6	140.97	1	0.7	57.4	214.41	1	0.7	68.6	316.17	1	0.7	92.2
99.37	1	0.7	40.3	142.97	1	0.7	58.1	215.41	1	0.7	69.3	316.77	1	0.7	92.9
100.81	1	0.7	41.0	145.75	1	0.7	58.8	217.41	1	0.7	70.0	317.37	1	0.7	93.6
104.64	1	0.7	41.7	146.71	1	0.7	59.5	219.41	1	0.7	70.7	317.97	1	0.7	94.3
109.56	1	0.7	42.4	162.71	1	0.7	60.2	221.41	1	0.7	71.4	318.57	1	0.7	95.0
111.56	1	0.7	43.1	163.71	1	0.7	60.9	223.41	1	0.7	72.1	319.17	1	0.7	95.7
111.56	1	0.7	43.8	169.45	1	0.7	61.6	226.41	1	0.7	72.8	319.77	1	0.7	96.4
111.56	1	0.7	44.5	177.43	1	0.7	62.3	227.41	1	0.7	73.5	320.37	1	0.7	97.1
111.56	1	0.7	45.2	178.27	1	0.7	63.0	229.41	1	0.7	74.2	320.97	1	0.7	97.8
111.56	1	0.7	45.9	180.97	1	0.7	63.7	231.41	1	0.7	74.9	321.57	1	0.7	98.5
118.57	1	0.7	46.6	185.39	1	0.7	64.4	232.41	1	0.7	75.6	322.17	1	0.7	99.2
120.57	1	0.7	47.3			0.7	65.1	298.41	1	0.7	76.3	322.77	1	0.7	99.9







2015 MONDAY JUNE 4 1964

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VARIABLE=NET3

FREQUENCY TABLE (CONT.)

VALUE	COUNT	PERCENTS CELL	CUM	VALUE	COUNT	PERCENTS CELL	CUM	VALUE	COUNT	PERCENTS CELL	CUM	VALUE	COUNT	PERCENTS CELL	CUM
152.56	1	0.7	34.5	366.04	1	0.7	69.0	531.62	1	0.7	85.9	613.58	1	0.7	90.7
153.54	1	0.7	35.2	368.76	1	0.7	70.4	546.55	1	0.7	86.6	635.52	1	0.7	91.4
154.52	1	0.7	35.9	378.88	1	0.7	71.1	552.38	1	0.7	87.3	651.03	1	0.7	92.1
155.50	1	0.7	36.6	382.56	1	0.7	71.8	557.53	1	0.7	88.0	667.56	1	0.7	92.8
156.48	1	0.7	37.3	392.03	1	0.7	72.5	586.50	1	0.7	88.7	683.09	1	0.7	93.5
157.46	1	0.7	38.0	396.71	1	0.7	73.2	613.58	1	0.7	89.4	699.62	1	0.7	94.2
158.44	1	0.7	38.7	406.24	1	0.7	73.9	635.52	1	0.7	90.1	715.15	1	0.7	94.9
159.42	1	0.7	39.4	413.58	1	0.7	74.6	651.03	1	0.7	90.8	730.68	1	0.7	95.6
160.40	1	0.7	40.1	421.96	1	0.7	75.3	667.56	1	0.7	91.5	746.21	1	0.7	96.3
161.38	1	0.7	40.8	425.66	1	0.7	76.0	683.09	1	0.7	92.2	761.74	1	0.7	97.0
162.36	1	0.7	41.5	426.53	1	0.7	76.7	699.62	1	0.7	92.9	777.27	1	0.7	97.7
163.34	1	0.7	42.2	444.14	1	0.7	77.4	715.15	1	0.7	93.6	792.80	1	0.7	98.4
164.32	1	0.7	42.9	453.14	1	0.7	78.1	730.68	1	0.7	94.3	808.33	1	0.7	99.1
165.30	1	0.7	43.6	476.83	1	0.7	78.8	746.21	1	0.7	95.0	823.86	1	0.7	99.8
166.28	1	0.7	44.3	489.32	1	0.7	79.5	761.74	1	0.7	95.7	839.39	1	0.7	100.0
167.26	1	0.7	45.0	492.69	1	0.7	80.2	777.27	1	0.7	96.4	854.92	1	0.7	100.0
168.24	1	0.7	45.7	499.82	1	0.7	80.9	792.80	1	0.7	97.1	870.45	1	0.7	100.0
169.22	1	0.7	46.4	499.82	1	0.7	81.6	808.33	1	0.7	97.8	885.98	1	0.7	100.0
170.20	1	0.7	47.1	519.52	1	0.7	82.3	823.86	1	0.7	98.5	901.51	1	0.7	100.0
171.18	1	0.7	47.8	523.52	1	0.7	83.0	839.39	1	0.7	99.2	917.04	1	0.7	100.0
172.16	1	0.7	48.5	529.52	1	0.7	83.7	854.92	1	0.7	99.9	932.57	1	0.7	100.0
173.14	1	0.7	49.2												
174.12	1	0.7	50.0												
175.10	1	0.7	50.7												
176.08	1	0.7	51.4												
177.06	1	0.7	52.1												
178.04	1	0.7	52.8												
179.02	1	0.7	53.5												
180.00	1	0.7	54.2												
181.98	1	0.7	54.9												
182.96	1	0.7	55.6												
183.94	1	0.7	56.3												
184.92	1	0.7	57.0												
185.90	1	0.7	57.7												
186.88	1	0.7	58.4												
187.86	1	0.7	59.1												
188.84	1	0.7	59.8												
189.82	1	0.7	60.5												
190.80	1	0.7	61.2												
191.78	1	0.7	61.9												
192.76	1	0.7	62.6												
193.74	1	0.7	63.3												
194.72	1	0.7	64.0												
195.70	1	0.7	64.7												
196.68	1	0.7	65.4												
197.66	1	0.7	66.1												
198.64	1	0.7	66.8												
199.62	1	0.7	67.5												
200.60	1	0.7	68.2												
201.58	1	0.7	68.9												
202.56	1	0.7	69.6												
203.54	1	0.7	70.3												
204.52	1	0.7	71.0												
205.50	1	0.7	71.7												
206.48	1	0.7	72.4												
207.46	1	0.7	73.1												
208.44	1	0.7	73.8												
209.42	1	0.7	74.5												
210.40	1	0.7	75.2												
211.38	1	0.7	75.9												
212.36	1	0.7	76.6												
213.34	1	0.7	77.3												
214.32	1	0.7	78.0												
215.30	1	0.7	78.7												
216.28	1	0.7	79.4												
217.26	1	0.7	80.1												
218.24	1	0.7	80.8												
219.22	1	0.7	81.5												
220.20	1	0.7	82.2												
221.18	1	0.7	82.9												
222.16	1	0.7	83.6												
223.14	1	0.7	84.3												
224.12	1	0.7	85.0												
225.10	1	0.7	85.7												
226.08	1	0.7	86.4												
227.06	1	0.7	87.1												
228.04	1	0.7	87.8												
229.02	1	0.7	88.5												
230.00	1	0.7	89.2												
231.98	1	0.7	89.9												
232.96	1	0.7	90.6												
233.94	1	0.7	91.3												
234.92	1	0.7	92.0												
235.90	1	0.7	92.7												
236.88	1	0.7	93.4												
237.86	1	0.7	94.1												
238.84	1	0.7	94.8												
239.82	1	0.7	95.5												
240.80	1	0.7	96.2												
241.78	1	0.7	96.9												
242.76	1	0.7	97.6												
243.74	1	0.7	98.3												
244.72	1	0.7	99.0												
245.70	1	0.7	99.7												
246.68	1	0.7	100.0												



UNIVARIATE											
VARIABLE=0ET4					QUANTILES(DEF=4)						
MOMENTS					EXTREMES						
MEAN	142	SUM WGTs	142	100% MAX	5434.06	99%	5348.81	LOWEST	HIGHEST		
STD DEV	1230.58	VARIANCE	174742	75% Q3	1805.24	95%	2259.61	-518.07	2587.13		
SKEWNESS	852.832	KURTOSIS	727323	50% MED	1090.03	90%	3137.41	-483.85	2617.08		
USS	31758.830	CSS	6.07798	25% Q1	696.585	10%	328.68	-449.42	2117.08		
CV	69.3033	STD MEAN	102552524	0% MIN	-518.07	1%	-584.169	-406.29	5235.82		
T-MEAN=0	17.1945	PRD>=T	71.6881	RANGE	5952.13		-503.355	-110.64	5434.06		
SGN RANK	176835	PRD>=S	0.0001	Q3-Q1	108.66						
NUM	142		0.0001	MODE	1005.47						
STEM LEAF					NORMAL PROBABILITY PLOT						
5	24				5250+						
4	4										
4	3										
2	5667				2250+						
1	5555566777888888899999999										
0	000000000011111112223444444										
0	55555566667777788888888999999										
0	11122334444444444										
-0	4410				-750+						
-0	55										
MULTIPLY STEM LEAF BY 10**03											
FREQUENCY TABLE											
VALUE	COUNT	PERCENTS	CUM	VALUE	COUNT	PERCENTS	CUM	VALUE	CUM		
-518.07	1	0.7	15.0	760.52	1	0.7	30.3	1029.75	1	0.7	45.8
-483.85	1	0.7	16.0	800.81	1	0.7	31.0	1056.94	1	0.7	46.5
-449.72	1	0.7	16.9	824.73	1	0.7	31.7	1056.94	1	0.7	47.2
-406.29	1	0.7	17.8	840.47	1	0.7	32.4	1064.09	1	0.7	47.9
-110.64	1	0.7	18.3	868.16	1	0.7	33.1	1086.63	1	0.7	48.6
45.85	1	0.7	19.0	876.33	1	0.7	33.8	1086.63	1	0.7	49.3
93.59	1	0.7	19.7	889.17	1	0.7	34.5	1091.01	1	0.7	50.0
127.04	1	0.7	20.4	897.06	1	0.7	35.2	1097.70	1	0.7	50.7
193.25	1	0.7	21.1	910.56	1	0.7	35.9	1109.70	1	0.7	51.4
303.16	1	0.7	21.8	922.59	1	0.7	36.6	1114.98	1	0.7	52.1
319.58	1	0.7	22.5	936.16	1	0.7	37.3	1141.98	1	0.7	52.8
337.41	1	0.7	23.2	976.71	1	0.7	38.0	1146.66	1	0.7	53.5
350.85	1	0.7	23.9	980.79	1	0.7	38.7	1179.96	1	0.7	54.2
370.17	1	0.7	24.6	991.15	1	0.7	39.4	1179.96	1	0.7	54.9
390.17	1	0.7	25.3	1007.24	1	0.7	40.1	1202.81	1	0.7	55.6
404.58	1	0.7	26.0	1012.33	1	0.7	40.8	1202.81	1	0.7	56.3
424.19	1	0.7	26.7	1025.33	1	0.7	41.5	1240.81	1	0.7	57.0
430.83	1	0.7	27.4		1	0.7	42.2	1240.81	1	0.7	57.7
		0.7	28.1			0.7	42.9	1255.52	1	0.7	58.4
		0.7	28.8			0.7	43.6			0.7	59.1
		0.7	29.5			0.7	44.3			0.7	59.8
		0.7	30.2			0.7	45.0			0.7	60.5
		0.7	30.9			0.7	45.7			0.7	61.2
		0.7	31.6			0.7	46.4			0.7	61.9
		0.7	32.3			0.7	47.1			0.7	62.6
		0.7	33.0			0.7	47.8			0.7	63.3
		0.7	33.7			0.7	48.5			0.7	64.0
		0.7	34.4			0.7	49.2			0.7	64.7
		0.7	35.1			0.7	49.9			0.7	65.4
		0.7	35.8			0.7	50.6			0.7	66.1
		0.7	36.5			0.7	51.3			0.7	66.8
		0.7	37.2			0.7	52.0			0.7	67.5
		0.7	37.9			0.7	52.7			0.7	68.2
		0.7	38.6			0.7	53.4			0.7	68.9
		0.7	39.3			0.7	54.1			0.7	69.6
		0.7	40.0			0.7	54.8			0.7	70.3
		0.7	40.7			0.7	55.5			0.7	71.0
		0.7	41.4			0.7	56.2			0.7	71.7
		0.7	42.1			0.7	56.9			0.7	72.4
		0.7	42.8			0.7	57.6			0.7	73.1
		0.7	43.5			0.7	58.3			0.7	73.8
		0.7	44.2			0.7	59.0			0.7	74.5
		0.7	44.9			0.7	59.7			0.7	75.2
		0.7	45.6			0.7	60.4			0.7	75.9
		0.7	46.3			0.7	61.1			0.7	76.6
		0.7	47.0			0.7	61.8			0.7	77.3
		0.7	47.7			0.7	62.5			0.7	78.0
		0.7	48.4			0.7	63.2			0.7	78.7
		0.7	49.1			0.7	63.9			0.7	79.4
		0.7	49.8			0.7	64.6			0.7	80.1
		0.7	50.5			0.7	65.3			0.7	80.8
		0.7	51.2			0.7	66.0			0.7	81.5
		0.7	51.9			0.7	66.7			0.7	82.2
		0.7	52.6			0.7	67.4			0.7	82.9
		0.7	53.3			0.7	68.1			0.7	83.6
		0.7	54.0			0.7	68.8			0.7	84.3
		0.7	54.7			0.7	69.5			0.7	85.0
		0.7	55.4			0.7	70.2			0.7	85.7
		0.7	56.1			0.7	70.9			0.7	86.4
		0.7	56.8			0.7	71.6			0.7	87.1
		0.7	57.5			0.7	72.3			0.7	87.8
		0.7	58.2			0.7	73.0			0.7	88.5
		0.7	58.9			0.7	73.7			0.7	89.2
		0.7	59.6			0.7	74.4			0.7	89.9
		0.7	60.3			0.7	75.1			0.7	90.6
		0.7	61.0			0.7	75.8			0.7	91.3
		0.7	61.7			0.7	76.5			0.7	92.0
		0.7	62.4			0.7	77.2			0.7	92.7
		0.7	63.1			0.7	77.9			0.7	93.4
		0.7	63.8			0.7	78.6			0.7	94.1
		0.7	64.5			0.7	79.3			0.7	94.8
		0.7	65.2			0.7	80.0			0.7	95.5
		0.7	65.9			0.7	80.7			0.7	96.2
		0.7	66.6			0.7	81.4			0.7	96.9
		0.7	67.3			0.7	82.1			0.7	97.6
		0.7	68.0			0.7	82.8			0.7	98.3
		0.7	68.7			0.7	83.5			0.7	99.0
		0.7	69.4			0.7	84.2			0.7	99.7
		0.7	70.1			0.7	84.9			0.7	100.4
		0.7	70.8			0.7	85.6			0.7	101.1
		0.7	71.5			0.7	86.3			0.7	101.8
		0.7	72.2			0.7	87.0			0.7	102.5
		0.7	72.9			0.7	87.7			0.7	103.2
		0.7	73.6			0.7	88.4			0.7	103.9
		0.7	74.3			0.7	89.1			0.7	104.6
		0.7	75.0			0.7	89.8			0.7	105.3
		0.7	75.7			0.7	90.5			0.7	106.0
		0.7	76.4			0.7	91.2			0.7	106.7
		0.7	77.1			0.7	91.9			0.7	107.4
		0.7	77.8			0.7	92.6			0.7	108.1
		0.7	78.5			0.7	93.3			0.7	108.8
		0.7	79.2			0.7	94.0			0.7	109.5
		0.7	79.9			0.7	94.7			0.7	110.2
		0.7	80.6			0.7	95.4			0.7	110.9
		0.7	81.3			0.7	96.1			0.7	111.6
		0.7	82.0			0.7	96.8			0.7	112.3
		0.7	82.7			0.7	97.5			0.7	113.0
		0.7	83.4			0.7	98.2			0.7	113.7
		0.7	84.1			0.7	98.9			0.7	114.4
		0.7	84.8			0.7	99.6			0.7	115.1
		0.7	85.5			0.7	100.3			0.7	115.8
		0.7	86.2			0.7	101.0			0.7	116.5
		0.7	86.9			0.7	101.7			0.7	117.2
		0.7	87.6			0.7	102.4			0.7	117.9
		0.7	88.3			0.7	103.1			0.7	118.6
		0.7	89.0			0.7	103.8			0.7	119.3
		0.7	89.7			0.7	104.5			0.7	120.0
		0.7	90.4			0.7	105.2			0.7	120.7
		0.7	91.1			0.7	105.9			0.7	121.4
		0.7	91.8			0.7	106.6			0.7	122.1
		0.7	92								



2015 MONDAY, JUNE 4, 1984

ENGINE NIC-400

UNIVARIATE

VARIABLE=DET4

FREQUENCY TABLE (CONT.)

VALUE	COUNT	PERCENTS CELL	CUM	VALUE	COUNT	PERCENTS CELL	CUM	VALUE	COUNT	PERCENTS CELL	CUM	VALUE	COUNT	PERCENTS CELL	CUM
1393.17	1	0.7	60.6	1741.87	1	0.7	71.1	1905.12	1	0.7	81.7	2196.4	1	0.7	92.3
1397.46	1	0.7	61.3	1760.42	1	0.7	71.8	1912.28	1	0.7	82.4	2197.2	1	0.7	93.0
1410.68	1	0.7	62.0	1773.32	1	0.7	72.5	1914.38	1	0.7	83.1	2198.2	1	0.7	93.7
1420.53	1	0.7	62.7	1774.39	1	0.7	73.2	1917.38	1	0.7	83.8	2199.9	1	0.7	94.4
1441.19	1	0.7	63.4	1785.01	1	0.7	73.9	1941.31	1	0.7	84.5	2200.7	1	0.7	95.1
1465.19	1	0.7	64.1	1801.16	1	0.7	74.6	1955.74	1	0.7	85.2	2201.5	1	0.7	95.8
1487.29	1	0.7	64.8	1817.93	1	0.7	75.3	1960.94	1	0.7	85.9	2203.1	1	0.7	96.5
1507.39	1	0.7	65.5	1839.57	1	0.7	76.0	1976.00	1	0.7	86.6	2204.7	1	0.7	97.2
1524.56	1	0.7	66.2	1865.47	1	0.7	76.7	2003.88	1	0.7	87.3	2206.3	1	0.7	97.9
1558.81	1	0.7	66.9	1871.47	1	0.7	77.4	2020.51	1	0.7	88.0	2207.9	1	0.7	98.6
1581.27	1	0.7	67.6	1892.52	1	0.7	78.1	2123.83	1	0.7	88.7	2209.5	1	0.7	99.3
1607.23	1	0.7	68.3	1902.77	1	0.7	78.8	2138.18	1	0.7	89.4	2211.1	1	0.7	99.9
1629.84	1	0.7	69.0	1904.67	1	0.7	79.5	2151.25	1	0.7	90.1	2212.7	1	0.7	100.0



2015 MONDAY, JUNE 4, 1984 18

ENGINE NIC-400

UNIVARIATE

VARIABLE=FD1

MOMENTS

N 142  
MEAN 140.3  
STD DEV 1.6337  
SKEWNESS 1.8048  
CURTOSIS 1260.2  
CV 186.666  
TIMEAN=0  
SGN-RANK 6.3630  
NUM 142

QUANTILES(DEF=4)

100% MAX 12.78  
95% O3 11.7695  
90% MED 7.6849  
50% O1 4.78999  
5% MIN -1.99  
0% MIN -1.54  
RANGE -1.9857  
O3 O1  
MODE 0.42

EXTREMES

HIGHEST 9.69  
LOWEST -1.99  
HIGHEST 9.81  
LOWEST -1.93  
HIGHEST 10.43  
LOWEST -1.88  
HIGHEST 12.78  
LOWEST -1.75

NORMAL PROBABILITY PLOT

BOXPLOT

12.5

#

STEM LEAF

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FREQUENCY TABLE

VALUE	COUNT	PERCENTS	CUM	VALUE	COUNT	PERCENTS	CUM	VALUE	COUNT	PERCENTS	CUM
-1.99	1	0.7	0.7	0.09	1	0.7	32.4	0.62	3	2.1	48.5
-1.94	1	0.7	1.4	0.11	1	0.7	33.5	0.77	4	2.8	51.3
-1.88	1	0.7	2.1	0.15	1	0.7	34.6	0.88	5	3.5	54.8
-1.75	1	0.7	2.8	0.23	1	0.7	35.8	0.88	6	4.2	59.0
-1.54	2	1.4	4.2	0.24	1	0.7	36.5	0.88	7	5.0	64.0
-1.41	1	0.7	4.9	0.33	1	0.7	37.8	0.88	8	5.8	69.8
-1.34	1	0.7	5.6	0.35	1	0.7	38.5	0.88	9	6.7	76.5
-1.24	1	0.7	6.3	0.36	1	0.7	39.2	0.88	10	7.7	84.2
-1.15	2	1.4	7.7	0.42	1	0.7	40.6	0.88	11	8.8	93.0
-1.03	1	0.7	8.4	0.48	1	0.7	41.3	0.88	12	9.7	102.7
-0.68	1	0.7	9.1	0.51	1	0.7	42.0	0.88	13	10.7	113.4
-0.67	1	0.7	9.8	0.55	1	0.7	42.7	0.88	14	11.8	125.2
-0.66	1	0.7	10.5	0.57	1	0.7	43.4	0.88	15	12.9	138.1
-0.63	1	0.7	11.2	0.58	1	0.7	44.1	0.88	16	14.0	152.1



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ENGINE NTC-40C

UNIVARIATE

VARIABLE=FD1

FREQUENCY TABLE (CONT.)

VALUE	COUNT	PERCENTS CELL	CUM	VALUE	COUNT	PERCENTS CELL	CUM	VALUE	COUNT	PERCENTS CELL	CUM	VALUE	COUNT	PERCENTS CELL	CUM	VALUE	COUNT	PERCENTS CELL	CUM
1.47	1	0.7	63.4	1.9	1	0.7	75.3	3.07	1	0.7	81.7	4.08	1	0.7	90.8				
1.48	1	0.7	64.8	2.02	1	0.7	78.3	3.09	1	0.7	83.4	5.09	1	0.7	91.3				
1.51	1	0.7	65.5	2.05	1	0.7	79.6	5.17	1	0.7	85.8	5.28	1	0.7	93.0				
1.56	1	0.7	66.2	2.10	1	0.7	80.3	5.30	1	0.7	86.5	7.14	1	0.7	94.4				
1.59	1	0.7	66.9	2.12	1	0.7	81.0	7.15	1	0.7	87.2	7.75	1	0.7	95.1				
1.63	1	0.7	67.6	2.13	1	0.7	81.7	8.13	1	0.7	88.0	8.76	1	0.7	95.8				
1.65	1	0.7	68.3	2.14	1	0.7	82.4	9.01	1	0.7	88.7	9.81	1	0.7	96.5				
1.73	1	0.7	69.0	2.54	1	0.7	83.1	10.43	1	0.7	89.4	12.78	1	0.7	98.6				
1.82	1	0.7	70.4	2.68	1	0.7	80.3												
1.87	1	0.7	71.8				81.0												







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ENGINE NIC-400

UNIVARIATE

VARIABLE=FD13

MOMENTS

QUANTILES (DEF=4)

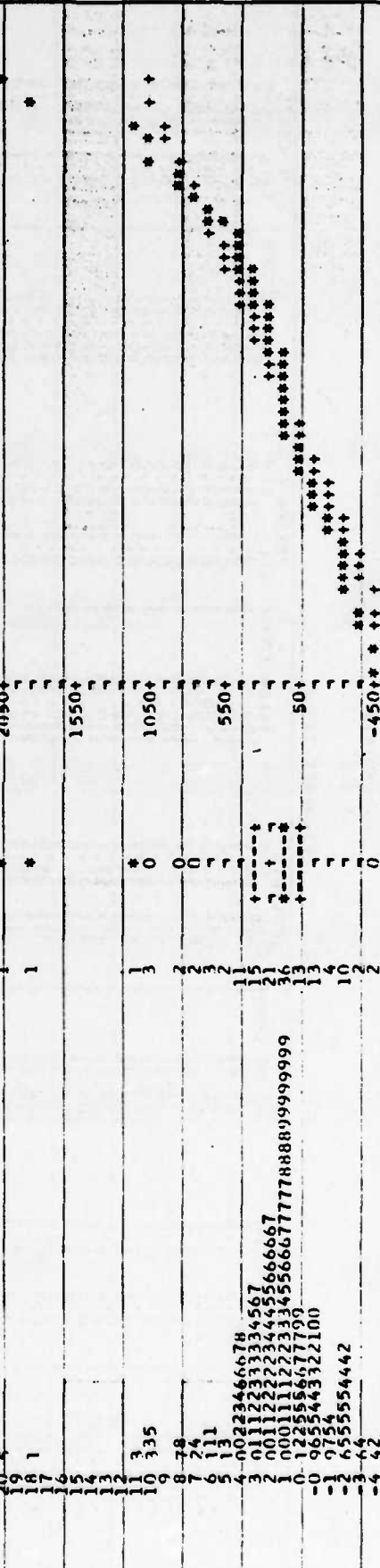
EXTREMES

MEAN	211.384	142	SUM WGT	142	100% MAX	2050.19	99%	1946.33	LOWEST	HIGHEST
STD DEV	348.736	30017	VARIANCE	121600	75% Q3	318.255	95%	881.655	-437.49	1031.29
SKEWNESS	348.736	7160319	KURTOSIS	1717382	50% MED	48.125	10%	-210.187	-437.49	1031.29
CV	2346.613	1717382	STD MEAN	20.2392	25% Q1	-837.49	5%	-251.095	-344.59	1808.67
TIMEAN=0	164.827	0.0001	PROB>T	0.0001	0% MIN	2487.68	1%	-428.98	-256.43	2050.19
SGN-RANK	7.34015	0.0001	PRUN>T	0.0001	RANGE	2401.942				
NUM	141				MODE	1031.29				

STEM LEAF

BOXPLT

NORMAL PROBABILITY PLOT



MULTIPLY STEM LEAF BY 10\*\*02



## UNIVARIATE

## VARIABLE=FDJ3

**FREQUENCY TABLE**

[illegible]



## VARIABLE=ZNI

## ADJUDICATIONS

QUANTILES (DEF=4)

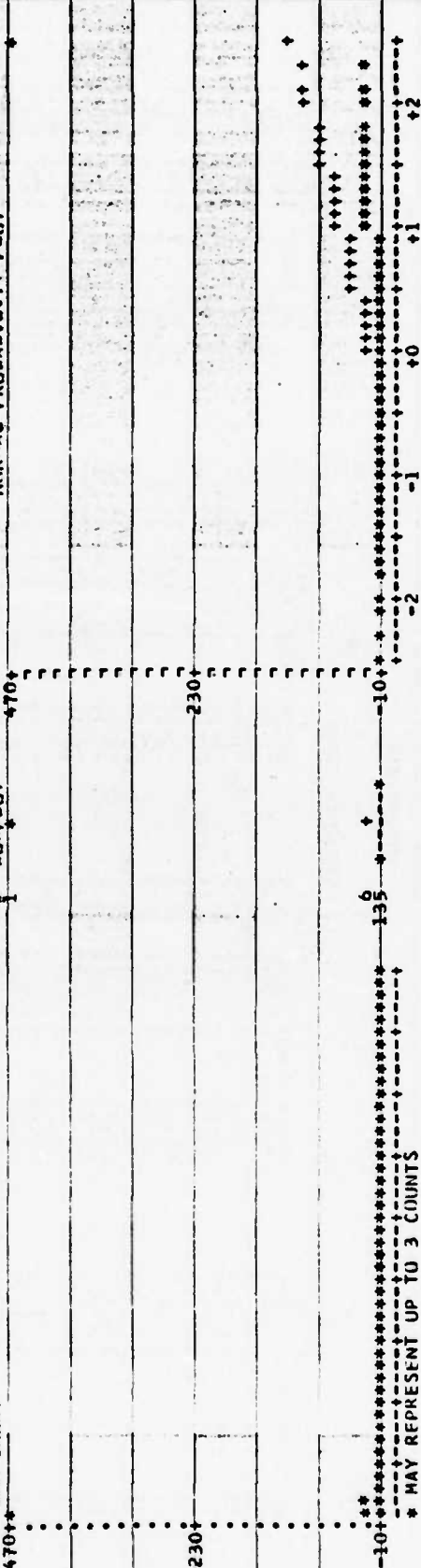
## EXTREMES

[illegible]

## BAR CHART

# 107208

# NORMAL PROBABILITY PLOT



**MAY REPRESENT UP TO 3 COUNTS**



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## UNIVARIATE

### FREQUENCY TABLE

**VARIABLE=ZNI**

[illegible]



2015 MONDAY, JUNE 4, 1984

ENGINE MIC-400

UNIVARIATE

VARIABLE=HRS

MOMENTS

QUANTILES(DEF=4)

EXTREMES

MEAN	421.554	23	SUM WGT	9695.74	23	100% MAX	1542	992	1542	LOWEST	HIGHEST
STD DEV	536.063	23	VARIANCE	287364	23	50% MED	697	952	1540	-0.26	1043
SKEWNESS	123944	23	KURTOSIS	0.194588	23	25% Q1	118	902	1531.2	4	1043
CV	10409286	23	CSS	6322009	23	0% MIN	34	102	639999	18	1532
TIME AII=0	127.164	23	STD MEAN	111.777	23		-0.26	12	0.591999	29	1542
SGN RANK	3.77137	23	PROB>T	0.00106014	23				-0.26		
NUM	0	23	PROB>S	0.0001	23						

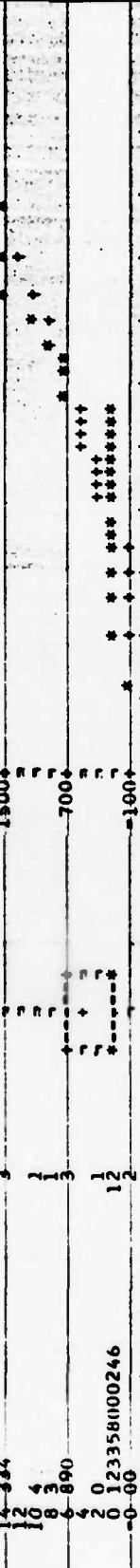
MISSING VALUE COUNT 113

z COUNT/NOHS 83.80

BOXPLOT

NORMAL PROBABILITY PLOT

STEM LEAF



MULTIPLY STEM LEAF BY 10\*\*02

FREQUENCY TABLE

VALUE	COUNT	PERCENTS	CELL	CUM	VALUE	COUNT	PERCENTS	CELL	CUM	VALUE	COUNT	PERCENTS	CELL	CUM
-0.26	1	4.3	4.3	4.3	143	1	4.3	4.3	56.6	1043	1	4.3	4.3	87.0
4	1	4.3	4.3	8.7	160	1	4.3	4.3	60.2	1230	1	4.3	4.3	91.3
10	1	4.3	4.3	13.0	198	1	4.3	4.3	64.6	1232	1	4.3	4.3	95.7
18	1	4.3	4.3	17.4	690	1	4.3	4.3	68.9	1242	1	4.3	4.3	100.0
29	1	4.3	4.3	21.7	697	1	4.3	4.3	73.2					
34	1	4.3	4.3	26.1					78.3					

20

F



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UNIVARIATE

VARIABLE=FE

MOMENTS

MEAN 26.0493  
STD DEV 1.09177  
SKEWNESS 1.30223  
CURTOSIS 59.495  
T-MEAN=0  
SGN-RANK 5076.5  
NUM 142

SUM HGTs 142  
SUM 369  
VARIANCE 240.389  
VARIOSIS 368.879  
CUS 338.667  
STD MEAN 1.30057  
PROR>=1 0.0001  
PROR>=5 0.0001

QUANTILES(DEF=4)

100% MAX 101  
75% Q3 101  
50% MED 25  
25% Q1 13  
0% MIN 3  
RANGE 98  
Q3-Q1 23  
MODE 11

EXTREMES

LOWEST 4  
HIGHEST 5  
56  
56  
101

NORMAL PROBABILITY PLOT

BOXPLOT

STEM LEAF



FREQUENCY TABLE

VALUE	COUNT	PERCENTS CELL	CUM PERCENTS	VALUE	COUNT	PERCENTS CELL	CUM PERCENTS
3	1	0.7	0.7	46	1	0.7	90.8
4	3	2.1	2.8	47	1	0.7	91.5
5	2	1.4	4.2	48	1	0.7	92.2
6	2	1.4	5.6	49	1	0.7	92.9
7	2	1.4	7.0	50	1	0.7	93.6
8	2	1.4	8.4	51	1	0.7	94.3
9	2	1.4	9.8	52	1	0.7	95.0
10	2	1.4	11.2	53	1	0.7	95.7
11	2	1.4	12.6	54	1	0.7	96.4
12	2	1.4	14.0	55	1	0.7	97.1
13	2	1.4	15.4	56	1	0.7	97.8
14	2	1.4	16.8	101	1	0.7	98.5
15	2	1.4	18.2				100.0

MULTIPLY STEM LEAF BY 10\*\*+01



ENGINE NTC-400

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## UNIVARIATE

VARIABLE=VIS

## MOMENTS

N 140  
 MEAN 155.05  
 STD DEV 35.2533  
 SKEWNESS 0.702106  
 KURTOSIS 1.50337  
 USS 3538419  
 CV 22.7367  
 TMEAN=0  
 SGN-RANK 52.0935  
 NUM 140

## QUANTILES(DEF=4)

100% MAX 295  
 75% Q3 169175  
 50% MED 155  
 25% Q1 13155  
 0% MIN 56  
 RANGE 239  
 Q3-Q1 3825  
 MODE 160

## EXTREMES

LOWEST 273.679  
 102 207.8  
 103 103  
 103 103  
 293 74.8599

MISSING VALUE  
 COUNT  
 % COUNT/NORS 1.41

## BOXPLOT

3954

## NORMAL PROBABILITY PLOT

STEM LEAF

20 5  
 28 7  
 27 7  
 26 7  
 25 33  
 24 0077  
 23 34469  
 22 23468  
 21 192  
 20 01467  
 19 0112245566  
 18 00000133345556667799  
 17 01133444555666778899999  
 16 01134556778  
 15 01134466788999  
 14 0011344466788  
 13 34677  
 12 22334455566799  
 11 0  
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 17 01133444555666778899999  
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 15 01134466788999  
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 7 5

MULTIPLY STEM LEAF BY 10\*\*01

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## UNIVARIATE

VARIABLE=VIS

## FREQUENCY TABLE

VALUE	COUNT	PERCENTS CELL	PERCENTS CUM	VALUE	COUNT	PERCENTS CELL	PERCENTS CUM	VALUE	COUNT	PERCENTS CELL	PERCENTS CUM
56	1	0.7	0.7	156	3	2.1	52.9	184	1	0.7	85.0
102	2	1.4	2.1	157	3	2.1	54.4	186	1	0.7	85.7
103	2	1.4	3.5	158	5	3.4	56.0	187	1	0.7	86.4
104	2	1.4	4.9	159	5	3.4	56.0	192	1	0.7	87.1
105	2	1.4	6.3	160	1	0.7	65.0	203	1	0.7	87.8
106	2	1.4	7.7	161	3	2.1	67.0	204	1	0.7	88.5
107	2	1.4	9.1	162	3	2.1	67.0	206	1	0.7	89.2
108	2	1.4	10.5	163	3	2.1	67.0	208	1	0.7	89.9
109	2	1.4	11.9	164	3	2.1	67.0	213	1	0.7	90.6
110	2	1.4	13.3	165	3	2.1	67.0	214	1	0.7	91.3
111	2	1.4	14.7	166	3	2.1	67.0	216	1	0.7	92.0
112	2	1.4	16.1	167	3	2.1	67.0	218	1	0.7	92.7
113	2	1.4	17.5	168	3	2.1	67.0	220	1	0.7	93.4
114	2	1.4	18.9	169	3	2.1	67.0	221	1	0.7	94.1
115	2	1.4	20.3	170	3	2.1	67.0	223	1	0.7	94.8
116	2	1.4	21.7	171	3	2.1	67.0	224	1	0.7	95.5
117	2	1.4	23.1	172	3	2.1	67.0	227	1	0.7	96.2
118	2	1.4	24.5	173	3	2.1	67.0	230	1	0.7	96.9
119	2	1.4	25.9	174	3	2.1	67.0	243	1	0.7	97.6
120	2	1.4	27.3	175	3	2.1	67.0	255	1	0.7	98.3
121	2	1.4	28.7	176	3	2.1	67.0				
122	2	1.4	30.1	180	3	2.1	67.0				
123	2	1.4	31.5	181	3	2.1	67.0				
124	2	1.4	32.9								
125	2	1.4	34.3								
126	2	1.4	35.7								
127	2	1.4	37.1								
128	2	1.4	38.5								
129	2	1.4	39.9								
130	2	1.4	41.3								



VARIABLE=TAN															
MOMENTS					QUANTILES(DEF=4)					EXTREMES					
N	MEAN	STD DEV	SKEWNESS	KURTOSIS	SUM WGT	142	142	142	142	100% MAX	3.29	99%	3.2771	HIGHEST	
2.24162	0.48295	0.233285	0.233285	0.233285	318.31	318.31	318.31	318.31	318.31	75% Q3	2.53	95%	2.784	2.98	
1.18004	0.18004	0.08082	0.08082	0.08082	32.8931	32.8931	32.8931	32.8931	32.8931	50% Q1	2.0675	10%	1.67	2.99	
1.423	0.423	0.18931	0.18931	0.18931	0.0405321	0.0405321	0.0405321	0.0405321	0.0405321	0% MIN	0.47	5%	0.67	3.05	
21.5467	21.5467	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	RANGE	2.82	1%	0.5001	3.29	
5076.5	5076.5	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	Q3-Q1	0.4625				
142	142	142	142	142	142	142	142	142	142	MODE	2.14				
NORMAL PROBABILITY PLOT															
STEM LEAF															
30 5	40115789														
28 3	2244558001133479														
26 4	0001117799013336679														
24 0	0122344466688899112333445778999														
22 0	0344666779001144444556667888889														
20 0	78889456788														
18 1	161457726														
16 4	4559														
14 2	10 1														
12 1	8 4														
10 1	6 7														
8 4	4 7														
MULTIPLY STEM, LEAF BY 10**01															
FREQUENCY TABLE															
VALUE	COUNT	PERCENTS	CUM	VALUE	COUNT	PERCENTS	CUM	VALUE	COUNT	PERCENTS	CUM	VALUE	COUNT	PERCENTS	CUM
0.47	1	0.7	16.9	2.2	1	0.7	43.8	2.2	1	1.4	73.2	2.2	1	1.4	73.2
0.54	1	0.7	17.6	2.3	1	0.7	46.5	2.3	1	1.4	74.6	2.3	1	1.4	74.6
0.67	1	0.7	18.3	2.4	1	0.7	48.2	2.4	1	1.4	76.0	2.4	1	1.4	76.0
0.84	1	0.7	19.0	2.5	1	0.7	50.0	2.5	1	1.4	77.4	2.5	1	1.4	77.4
1.1	1	0.7	19.7	2.6	1	0.7	51.7	2.6	1	1.4	78.8	2.6	1	1.4	78.8
1.14	1	0.7	20.4	2.7	1	0.7	53.4	2.7	1	1.4	80.2	2.7	1	1.4	80.2
1.145	1	0.7	21.1	2.8	1	0.7	55.2	2.8	1	1.4	81.6	2.8	1	1.4	81.6
1.145	1	0.7	21.8	2.9	1	0.7	56.9	2.9	1	1.4	83.0	2.9	1	1.4	83.0
1.145	1	0.7	22.5	3.0	1	0.7	58.6	3.0	1	1.4	84.4	3.0	1	1.4	84.4
1.145	1	0.7	23.2	3.1	1	0.7	60.3	3.1	1	1.4	85.8	3.1	1	1.4	85.8
1.145	1	0.7	23.9	3.2	1	0.7	62.0	3.2	1	1.4	87.2	3.2	1	1.4	87.2
1.145	1	0.7	24.6	3.3	1	0.7	63.7	3.3	1	1.4	88.6	3.3	1	1.4	88.6
1.145	1	0.7	25.3	3.4	1	0.7	65.4	3.4	1	1.4	90.0	3.4	1	1.4	90.0
1.145	1	0.7	26.0	3.5	1	0.7	67.1	3.5	1	1.4	91.4	3.5	1	1.4	91.4
1.145	1	0.7	26.7	3.6	1	0.7	68.8	3.6	1	1.4	92.8	3.6	1	1.4	92.8
1.145	1	0.7	27.4	3.7	1	0.7	70.5	3.7	1	1.4	94.2	3.7	1	1.4	94.2
1.145	1	0.7	28.1	3.8	1	0.7	72.2	3.8	1	1.4	95.6	3.8	1	1.4	95.6
1.145	1	0.7	28.8	3.9	1	0.7	73.9	3.9	1	1.4	97.0	3.9	1	1.4	97.0
1.145	1	0.7	29.5	4.0	1	0.7	75.6	4.0	1	1.4	98.4	4.0	1	1.4	98.4
1.145	1	0.7	30.2	4.1	1	0.7	77.3	4.1	1	1.4	99.8	4.1	1	1.4	99.8
1.145	1	0.7	30.9	4.2	1	0.7	79.0	4.2	1	1.4	100.0	4.2	1	1.4	100.0

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4.



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ENGINE NTC-400

UNIVARIATE

VARIABLE=TAN

FREQUENCY TABLE (CONT.)

PERCENTS				PERCENTS				PERCENTS			
VALUE	COUNT	CELL	CUM	VALUE	COUNT	CELL	CUM	VALUE	COUNT	CELL	CUM
2.9	1	0.7	93.7	2.97	1	0.7	96.5	3.05	1	0.7	98.6
2.81	1	1.4	95.1	2.98	1	0.7	97.2	3.26	1	0.7	99.3
2.95	1	0.7	95.8	2.99	1	0.7	97.9	3.29	1	0.7	100.0

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B



## VARIABLES

QUANTILES(DEF=4)

## EXTREMES

[illegible]

### FREQUENCY TABLE

PERCENTS			PERCENTS			PERCENTS			PERCENTS		
VALUE	COUNT	CELL	VALUE	COUNT	CELL	VALUE	COUNT	CELL	VALUE	COUNT	CELL
0.4	29	20.4	1.6	14	9.9	2.8	5	3.5	4	6	4.2
0.8	12	8.5	1.6	22	15.5	3.2	19	13.4	4	1	0.7
1.2	24	16.9	2.4	7	4.9	3.6	3	2.1	4.4	1	0.7
		45.8			76.1			95.1			



## VARIABLE=COR

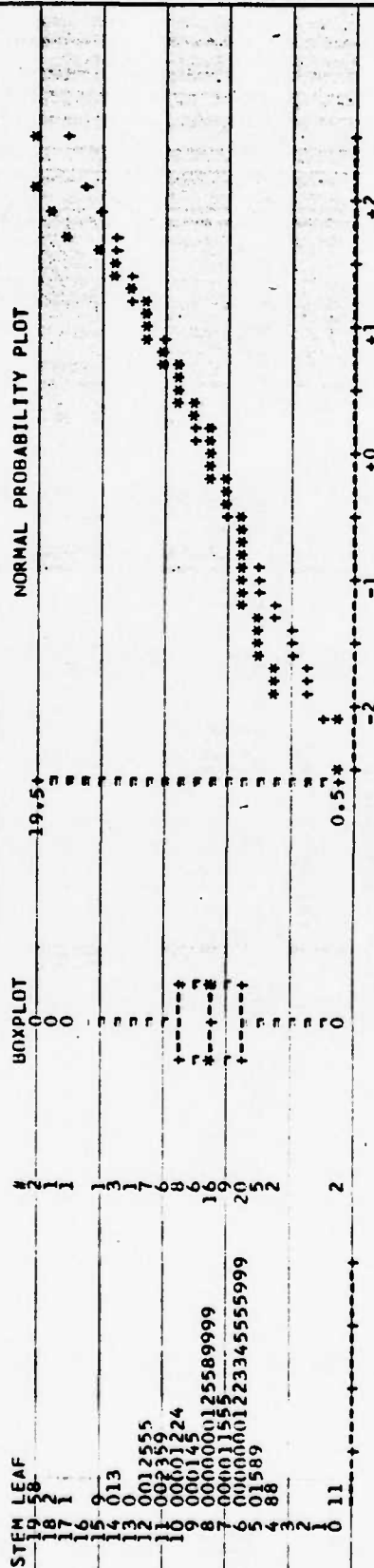
QUANTILES(DEF=4)

MEAN	90	SUM	HGTS	100%	MAX	99%	LOWEST	HIGHEST
STD DEV	8.8433	SUM	797.25	75%	10.55	99%	0.138	15.9
VARIANCE	77.1978	VARIANCE	12.1088	50%	8.105	95%	0.1	17.1
SKENESS	0.38045	KURTOSIS	2.74011	25%	6.475	90%	0.1	16.3
CV	8135.99	CSS	1077.68	0% <td>0.1</td> <td>10%</td> <td>4.85</td> <td>19.8</td>	0.1	10%	4.85	19.8
STD	2.825	MEAN	0.3668	RANGE	19.7	1%		19.8
PRUB>T=	39.21503	T=	0.0001	Q3-Q1	4.075			
PRUB>T=	24.11503	PRUB>T=	0.0001	MODE	4.075			
SUM	2047.90							

**STEM LEAF**

## EXPLOIT

## NORMAL PROBABILITY PLOT



### FREQUENCY TABLE

[illegible]

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UNIVARIATE

VARIABLE=COB

FREQUENCY TABLE (CONT.)

VALUE	COUNT	PERCENTS CELL	CUM	VALUE	COUNT	PERCENTS CELL	CUM	VALUE	COUNT	PERCENTS CELL	CUM
12.5	3	3.3	90.0	14.1	1	1.1	93.3	17.1	1	1.1	96.7
13	1	1.1	91.1	14.3	1	1.1	94.4	18.2	1	1.1	97.8
14	1	1.1	92.2	15.9	1	1.1	95.6	19.5	1	1.1	98.9



APPENDIX G  
DETROIT DIESEL ALLISON 8V-71T ENGINE  
1ST BATTALION OF THE 29TH FIELD ARTILLERY  
4TH INFANTRY DIVISION, FT. CARSON CO.

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\* These models were all developed early in the study and are based on a slightly different data collection methodology than that outlined in Table 1.



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CLS	DET1	DET2	DET3	DET4	FD1	FD2	FD13	ZNI	HRS	FE	VIS	TAN	TS	COR	GC
1	105.72	233.59	453.03	1335.61	2.16	5.63	40.83	-0.44	.	106	190	70	44	0	.
2	-614.08	190.28	533.34	1787.50	0.25	5.32	40.34	-0.82	134	217	190	22	44	11.9	.
3	-212.91	202.78	543.34	1819.24	-0.15	5.52	45.45	-0.56	134	217	190	22	44	18.2	.
4	471.08	185.13	555.71	1694.34	2.05	7.60	33.16	-1.03	147	185	178	22	44	8.0	.
5	333.21	220.49	558.71	1789.34	1.02	8.05	33.16	-0.91	160	227	175	22	44	10.0	.
6	1812.73	110.57	515.70	4205.42	2.07	3.27	22.07	-0.28	117	205	148	22	44	9.0	.
7	1303.88	224.57	225.33	587.71	1.59	3.00	11.11	-0.19	8	145	148	22	44	4.0	2
8	1322.82	224.57	225.33	587.71	1.59	3.00	11.11	-0.19	8	145	148	22	44	4.0	2
9	1322.82	224.57	225.33	587.71	1.59	3.00	11.11	-0.19	8	145	148	22	44	4.0	2
10	1322.82	224.57	225.33	587.71	1.59	3.00	11.11	-0.19	8	145	148	22	44	4.0	2
11	1322.82	224.57	225.33	587.71	1.59	3.00	11.11	-0.19	8	145	148	22	44	4.0	2
12	1322.82	224.57	225.33	587.71	1.59	3.00	11.11	-0.19	8	145	148	22	44	4.0	2
13	1322.82	224.57	225.33	587.71	1.59	3.00	11.11	-0.19	8	145	148	22	44	4.0	2
14	1322.82	224.57	225.33	587.71	1.59	3.00	11.11	-0.19	8	145	148	22	44	4.0	2
15	1322.82	224.57	225.33	587.71	1.59	3.00	11.11	-0.19	8	145	148	22	44	4.0	2
16	1322.82	224.57	225.33	587.71	1.59	3.00	11.11	-0.19	8	145	148	22	44	4.0	2
17	1322.82	224.57	225.33	587.71	1.59	3.00	11.11	-0.19	8	145	148	22	44	4.0	2
18	1322.82	224.57	225.33	587.71	1.59	3.00	11.11	-0.19	8	145	148	22	44	4.0	2
19	1322.82	224.57	225.33	587.71	1.59	3.00	11.11	-0.19	8	145	148	22	44	4.0	2
20	1322.82	224.57	225.33	587.71	1.59	3.00	11.11	-0.19	8	145	148	22	44	4.0	2
21	1322.82	224.57	225.33	587.71	1.59	3.00	11.11	-0.19	8	145	148	22	44	4.0	2
22	1322.82	224.57	225.33	587.71	1.59	3.00	11.11	-0.19	8	145	148	22	44	4.0	2
23	1322.82	224.57	225.33	587.71	1.59	3.00	11.11	-0.19	8	145	148	22	44	4.0	2
24	1322.82	224.57	225.33	587.71	1.59	3.00	11.11	-0.19	8	145	148	22	44	4.0	2
25	1322.82	224.57	225.33	587.71	1.59	3.00	11.11	-0.19	8	145	148	22	44	4.0	2
26	1322.82	224.57	225.33	587.71	1.59	3.00	11.11	-0.19	8	145	148	22	44	4.0	2
27	1322.82	224.57	225.33	587.71	1.59	3.00	11.11	-0.19	8	145	148	22	44	4.0	2
28	1322.82	224.57	225.33	587.71	1.59	3.00	11.11	-0.19	8	145	148	22	44	4.0	2
29	1322.82	224.57	225.33	587.71	1.59	3.00	11.11	-0.19	8	145	148	22	44	4.0	2
30	1322.82	224.57	225.33	587.71	1.59	3.00	11.11	-0.19	8	145	148	22	44	4.0	2
31	1322.82	224.57	225.33	587.71	1.59	3.00	11.11	-0.19	8	145	148	22	44	4.0	2
32	1322.82	224.57	225.33	587.71	1.59	3.00	11.11	-0.19	8	145	148	22	44	4.0	2
33	1322.82	224.57	225.33	587.71	1.59	3.00	11.11	-0.19	8	145	148	22	44	4.0	2
34	1322.82	224.57	225.33	587.71	1.59	3.00	11.11	-0.19	8	145	148	22	44	4.0	2
35	1322.82	224.57	225.33	587.71	1.59	3.00	11.11	-0.19	8	145	148	22	44	4.0	2
36	1322.82	224.57	225.33	587.71	1.59	3.00	11.11	-0.19	8	145	148	22	44	4.0	2
37	1322.82	224.57	225.33	587.71	1.59	3.00	11.11	-0.19	8	145	148	22	44	4.0	2
38	1322.82	224.57	225.33	587.71	1.59	3.00	11.11	-0.19	8	145	148	22	44	4.0	2
39	1322.82	224.57	225.33	587.71	1.59	3.00	11.11	-0.19	8	145	148	22	44	4.0	2
40	1322.82	224.57	225.33	587.71	1.59	3.00	11.11	-0.19	8	145	148	22	44	4.0	2
41	1322.82	224.57	225.33	587.71	1.59	3.00	11.11	-0.19	8	145	148	22	44	4.0	2
42	1322.82	224.57	225.33	587.71	1.59	3.00	11.11	-0.19	8	145	148	22	44	4.0	2
43	1322.82	224.57	225.33	587.71	1.59	3.00	11.11	-0.19	8	145	148	22	44	4.0	2
44	1322.82	224.57	225.33	587.71	1.59	3.00	11.11	-0.19	8	145	148	22	44	4.0	2
45	1322.82	224.57	225.33	587.71	1.59	3.00	11.11	-0.19	8	145	148	22	44	4.0	2
46	1322.82	224.57	225.33	587.71	1.59	3.00	11.11	-0.19	8	145	148	22	44	4.0	2
47	1322.82	224.57	225.33	587.71	1.59	3.00	11.11	-0.19	8	145	148	22	44	4.0	2
48	1322.82	224.57	225.33	587.71	1.59	3.00	11.11	-0.19	8	145	148	22	44	4.0	2
49	1322.82	224.57	225.33	587.71	1.59	3.00	11.11	-0.19	8	145	148	22	44	4.0	2
50	1322.82	224.57	225.33	587.71	1.59	3.00	11.11	-0.19	8	145	148	22	44	4.0	2
51	1322.82	224.57	225.33	587.71	1.59	3.00	11.11	-0.19	8	145	148	22	44	4.0	2
52	1322.82	224.57	225.33	587.71	1.59	3.00	11.11	-0.19	8	145	148	22	44	4.0	2
53	1322.82	224.57	225.33	587.71	1.59	3.00	11.11	-0.19	8	145	148	22	44	4.0	2
54	1322.82	224.57	225.33	587.71	1.59	3.00	11.11	-0.19	8	145	148	22	44	4.0	2
55	1322.82	224.57	225.33	587.71	1.59	3.00	11.11	-0.19	8	145	148	22	44	4.0	2
56	1322.82	224.57	225.33	587.71	1.59	3.00	11.11	-0.19	8	145	148	22	44	4.0	2



Obs	CL2	DET1	DET2	DET3	DET4	FD1	FD2	FDI3	ZN1	HRS	FE	VIS	TAN	TS	COB	GC
57	00	277.1	82.3	16.0	144.4	4.1	0.0	-46.0	-1.0	14	310	151	30	6.0	..	7.0
58	00	277.1	82.3	16.0	144.4	4.1	0.0	-46.0	-1.0	14	310	151	30	6.0	..	7.0
59	00	277.1	82.3	16.0	144.4	4.1	0.0	-46.0	-1.0	14	310	151	30	6.0	..	7.0
60	00	277.1	82.3	16.0	144.4	4.1	0.0	-46.0	-1.0	14	310	151	30	6.0	..	7.0
61	00	277.1	82.3	16.0	144.4	4.1	0.0	-46.0	-1.0	14	310	151	30	6.0	..	7.0
62	00	277.1	82.3	16.0	144.4	4.1	0.0	-46.0	-1.0	14	310	151	30	6.0	..	7.0
63	00	277.1	82.3	16.0	144.4	4.1	0.0	-46.0	-1.0	14	310	151	30	6.0	..	7.0
64	00	277.1	82.3	16.0	144.4	4.1	0.0	-46.0	-1.0	14	310	151	30	6.0	..	7.0
65	00	277.1	82.3	16.0	144.4	4.1	0.0	-46.0	-1.0	14	310	151	30	6.0	..	7.0
66	00	277.1	82.3	16.0	144.4	4.1	0.0	-46.0	-1.0	14	310	151	30	6.0	..	7.0
67	00	277.1	82.3	16.0	144.4	4.1	0.0	-46.0	-1.0	14	310	151	30	6.0	..	7.0
68	00	277.1	82.3	16.0	144.4	4.1	0.0	-46.0	-1.0	14	310	151	30	6.0	..	7.0
69	00	277.1	82.3	16.0	144.4	4.1	0.0	-46.0	-1.0	14	310	151	30	6.0	..	7.0
70	00	277.1	82.3	16.0	144.4	4.1	0.0	-46.0	-1.0	14	310	151	30	6.0	..	7.0
71	00	277.1	82.3	16.0	144.4	4.1	0.0	-46.0	-1.0	14	310	151	30	6.0	..	7.0
72	00	277.1	82.3	16.0	144.4	4.1	0.0	-46.0	-1.0	14	310	151	30	6.0	..	7.0
73	00	277.1	82.3	16.0	144.4	4.1	0.0	-46.0	-1.0	14	310	151	30	6.0	..	7.0
74	00	277.1	82.3	16.0	144.4	4.1	0.0	-46.0	-1.0	14	310	151	30	6.0	..	7.0
75	00	277.1	82.3	16.0	144.4	4.1	0.0	-46.0	-1.0	14	310	151	30	6.0	..	7.0
76	00	277.1	82.3	16.0	144.4	4.1	0.0	-46.0	-1.0	14	310	151	30	6.0	..	7.0
77	00	277.1	82.3	16.0	144.4	4.1	0.0	-46.0	-1.0	14	310	151	30	6.0	..	7.0
78	00	277.1	82.3	16.0	144.4	4.1	0.0	-46.0	-1.0	14	310	151	30	6.0	..	7.0
79	00	277.1	82.3	16.0	144.4	4.1	0.0	-46.0	-1.0	14	310	151	30	6.0	..	7.0
80	00	277.1	82.3	16.0	144.4	4.1	0.0	-46.0	-1.0	14	310	151	30	6.0	..	7.0
81	00	277.1	82.3	16.0	144.4	4.1	0.0	-46.0	-1.0	14	310	151	30	6.0	..	7.0
82	00	277.1	82.3	16.0	144.4	4.1	0.0	-46.0	-1.0	14	310	151	30	6.0	..	7.0
83	00	277.1	82.3	16.0	144.4	4.1	0.0	-46.0	-1.0	14	310	151	30	6.0	..	7.0
84	00	277.1	82.3	16.0	144.4	4.1	0.0	-46.0	-1.0	14	310	151	30	6.0	..	7.0
85	00	277.1	82.3	16.0	144.4	4.1	0.0	-46.0	-1.0	14	310	151	30	6.0	..	7.0
86	00	277.1	82.3	16.0	144.4	4.1	0.0	-46.0	-1.0	14	310	151	30	6.0	..	7.0
87	00	277.1	82.3	16.0	144.4	4.1	0.0	-46.0	-1.0	14	310	151	30	6.0	..	7.0
88	00	277.1	82.3	16.0	144.4	4.1	0.0	-46.0	-1.0	14	310	151	30	6.0	..	7.0
89	00	277.1	82.3	16.0	144.4	4.1	0.0	-46.0	-1.0	14	310	151	30	6.0	..	7.0
90	00	277.1	82.3	16.0	144.4	4.1	0.0	-46.0	-1.0	14	310	151	30	6.0	..	7.0
91	00	277.1	82.3	16.0	144.4	4.1	0.0	-46.0	-1.0	14	310	151	30	6.0	..	7.0
92	00	277.1	82.3	16.0	144.4	4.1	0.0	-46.0	-1.0	14	310	151	30	6.0	..	7.0
93	00	277.1	82.3	16.0	144.4	4.1	0.0	-46.0	-1.0	14	310	151	30	6.0	..	7.0
94	00	277.1	82.3	16.0	144.4	4.1	0.0	-46.0	-1.0	14	310	151	30	6.0	..	7.0
95	00	277.1	82.3	16.0	144.4	4.1	0.0	-46.0	-1.0	14	310	151	30	6.0	..	7.0
96	00	277.1	82.3	16.0	144.4	4.1	0.0	-46.0	-1.0	14	310	151	30	6.0	..	7.0
97	00	277.1	82.3	16.0	144.4	4.1	0.0	-46.0	-1.0	14	310	151	30	6.0	..	7.0
98	00	277.1	82.3	16.0	144.4	4.1	0.0	-46.0	-1.0	14	310	151	30	6.0	..	7.0
99	00	277.1	82.3	16.0	144.4	4.1	0.0	-46.0	-1.0	14	310	151	30	6.0	..	7.0
100	00	277.1	82.3	16.0	144.4	4.1	0.0	-46.0	-1.0	14	310	151	30	6.0	..	7.0

G-2



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ENGINE RV-711

OUS	CL2	DET1	DET2	DET3	DET4	FD1	FD2	FOI3	ZN1	HRS	FE	VIS	TAN	TS	COR	GC
113	34	-15.44	234.34	264.42	1298.76	0.09	0.00	157.31	-0.44	12	187	187	24	0	9.00	...
114	34	-827.17	254.81	376.61	1945.86	-0.99	0.00	191.34	-0.79	18	187	188	24	4.8	9.00	...
115	34	249.67	306.49	475.35	1895.54	1.82	0.00	154.13	-0.44	18	244	190	24	4.8	9.00	...
116	34	426.60	332.80	461.25	1964.70	0.72	5.48	217.89	-0.56	16	275	185	24	4.8	10.00	...
117	34	3837.87	261.05	133.10	443.03	7.31	0.00	49.53	-0.12	12	47	187	24	4.8	9.00	...
118	34	-363.61	183.87	350.71	1391.10	-2.88	0.00	428.27	-0.17	12	47	187	24	4.8	9.00	...
119	34	143.74	310.87	550.01	1888.10	-1.31	0.00	312.02	-0.44	13	209	169	24	4.8	9.00	...
120	34	597.33	224.73	557.40	1706.84	-1.31	0.00	285.19	-0.63	13	209	169	24	4.8	9.00	...
121	34	1917.63	222.80	557.40	1706.84	-1.31	0.00	285.19	-0.63	13	209	169	24	4.8	9.00	...
122	34	1512.93	222.80	557.40	1706.84	-1.31	0.00	285.19	-0.63	13	209	169	24	4.8	9.00	...
123	34	1877.37	222.80	557.40	1706.84	-1.31	0.00	285.19	-0.63	13	209	169	24	4.8	9.00	...
124	34	2045.04	222.80	557.40	1706.84	-1.31	0.00	285.19	-0.63	13	209	169	24	4.8	9.00	...
125	34	330.10	222.80	557.40	1706.84	-1.31	0.00	285.19	-0.63	13	209	169	24	4.8	9.00	...
126	34	592.44	222.80	557.40	1706.84	-1.31	0.00	285.19	-0.63	13	209	169	24	4.8	9.00	...
127	34	682.94	222.80	557.40	1706.84	-1.31	0.00	285.19	-0.63	13	209	169	24	4.8	9.00	...
128	34	751.13	222.80	557.40	1706.84	-1.31	0.00	285.19	-0.63	13	209	169	24	4.8	9.00	...
129	34	751.13	222.80	557.40	1706.84	-1.31	0.00	285.19	-0.63	13	209	169	24	4.8	9.00	...
130	34	658.30	222.80	557.40	1706.84	-1.31	0.00	285.19	-0.63	13	209	169	24	4.8	9.00	...
131	34	300.30	222.80	557.40	1706.84	-1.31	0.00	285.19	-0.63	13	209	169	24	4.8	9.00	...
132	34	225.01	222.80	557.40	1706.84	-1.31	0.00	285.19	-0.63	13	209	169	24	4.8	9.00	...
133	34	1302.24	222.80	557.40	1706.84	-1.31	0.00	285.19	-0.63	13	209	169	24	4.8	9.00	...
134	34	1308.94	222.80	557.40	1706.84	-1.31	0.00	285.19	-0.63	13	209	169	24	4.8	9.00	...
135	34	941.05	222.80	557.40	1706.84	-1.31	0.00	285.19	-0.63	13	209	169	24	4.8	9.00	...
136	34	1257.28	222.80	557.40	1706.84	-1.31	0.00	285.19	-0.63	13	209	169	24	4.8	9.00	...
137	34	1557.28	222.80	557.40	1706.84	-1.31	0.00	285.19	-0.63	13	209	169	24	4.8	9.00	...
138	34	106.63	222.80	557.40	1706.84	-1.31	0.00	285.19	-0.63	13	209	169	24	4.8	9.00	...
139	34	-476.33	222.80	557.40	1706.84	-1.31	0.00	285.19	-0.63	13	209	169	24	4.8	9.00	...
140	34	1584.00	222.80	557.40	1706.84	-1.31	0.00	285.19	-0.63	13	209	169	24	4.8	9.00	...
141	34	1694.21	222.80	557.40	1706.84	-1.31	0.00	285.19	-0.63	13	209	169	24	4.8	9.00	...
142	34	1627.27	222.80	557.40	1706.84	-1.31	0.00	285.19	-0.63	13	209	169	24	4.8	9.00	...
143	34	1590.71	222.80	557.40	1706.84	-1.31	0.00	285.19	-0.63	13	209	169	24	4.8	9.00	...
144	34	761.24	222.80	557.40	1706.84	-1.31	0.00	285.19	-0.63	13	209	169	24	4.8	9.00	...
145	34	555.60	222.80	557.40	1706.84	-1.31	0.00	285.19	-0.63	13	209	169	24	4.8	9.00	...
146	34	320.71	222.80	557.40	1706.84	-1.31	0.00	285.19	-0.63	13	209	169	24	4.8	9.00	...
147	34	320.71	222.80	557.40	1706.84	-1.31	0.00	285.19	-0.63	13	209	169	24	4.8	9.00	...
148	34	320.71	222.80	557.40	1706.84	-1.31	0.00	285.19	-0.63	13	209	169	24	4.8	9.00	...
149	34	320.71	222.80	557.40	1706.84	-1.31	0.00	285.19	-0.63	13	209	169	24	4.8	9.00	...
150	34	320.71	222.80	557.40	1706.84	-1.31	0.00	285.19	-0.63	13	209	169	24	4.8	9.00	...
151	34	320.71	222.80	557.40	1706.84	-1.31	0.00	285.19	-0.63	13	209	169	24	4.8	9.00	...
152	34	320.71	222.80	557.40	1706.84	-1.31	0.00	285.19	-0.63	13	209	169	24	4.8	9.00	...
153	34	320.71	222.80	557.40	1706.84	-1.31	0.00	285.19	-0.63	13	209	169	24	4.8	9.00	...
154	34	320.71	222.80	557.40	1706.84	-1.31	0.00	285.19	-0.63	13	209	169	24	4.8	9.00	...
155	34	320.71	222.80	557.40	1706.84	-1.31	0.00	285.19	-0.63	13	209	169	24	4.8	9.00	...
156	34	320.71	222.80	557.40	1706.84	-1.31	0.00	285.19	-0.63	13	209	169	24	4.8	9.00	...
157	34	320.71	222.80	557.40	1706.84	-1.31	0.00	285.19	-0.63	13	209	169	24	4.8	9.00	...
158	34	320.71	222.80	557.40	1706.84	-1.31	0.00	285.19	-0.63	13	209	169	24	4.8	9.00	...
159	34	320.71	222.80	557.40	1706.84	-1.31	0.00	285.19	-0.63	13	209	169	24	4.8	9.00	...
160	34	320.71	222.80	557.40	1706.84	-1.31	0.00	285.19	-0.63	13	209	169	24	4.8	9.00	...
161	34	320.71	222.80	557.40	1706.84	-1.31	0.00	285.19	-0.63	13	209	169	24	4.8	9.00	...
162	34	320.71	222.80	557.40	1706.84	-1.31	0.00	285.19	-0.63	13	209	169	24	4.8	9.00	...
163	34	320.71	222.80	557.40	1706.84	-1.31	0.00	285.19	-0.63	13	209	169	24	4.8	9.00	...
164	34	320.71	222.80	557.40	1706.84	-1.31	0.00	285.19	-0.63	13	209	169	24	4.8	9.00	...
165	34	320.71	222.80	557.40	1706.84	-1.31	0.00	285.19	-0.63	13	209	169	24	4.8	9.00	...
166	34	320.71	222.80	557.40	1706.84	-1.31	0.00	285.19	-0.63	13	209	169	24	4.8	9.00	...
167	34	320.71	222.80	557.40	1706.84	-1.31	0.00	285.19	-0.63	13	209	169	24	4.8	9.00	...
168	34	320.71	222.80	557.40	1706.84	-1.31	0.00	285.19	-0.63	13	209	169	24	4.8	9.00	...



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NBS	CL2	DET1	DET2	DET3	DET4	FD1	FD2	FDI3	ZN1	HRS	FE	VIS	TAN	TS	COR	GC
169	30.23	1685.48	140.36	427.35	1391.69	1.29	0.00	292.20	-0.58	94	151	100	2.53	4.8	6.0	10
170	37.53	1622.31	138.85	454.58	1250.04	0.41	0.28	281.83	-0.58	106	172	115	2.69	6.8	5.5	5
171	6.23	1677.34	138.27	453.24	1291.28	4.57	0.00	155.72	-0.87	107	43	145	1.95	0.4	3.5	2
172	4.34	1617.18	138.27	453.24	1291.28	4.57	0.00	155.72	-0.87	113	35	162	1.81	0.4	3.5	2
173	45.73	1325.94	342.04	900.25	2955.09	-0.49	0.00	159.33	-1.15	4	146	178	3.61	7.2	7.0	.
174	10.73	449.58	-1.93	141.25	745.73	-0.32	0.00	-14.13	-0.70	38	159	172	1.79	4.0	.	.
175	13.67	353.61	3.16	198.31	746.23	-0.32	0.00	-17.43	-0.61	43	73	148	1.85	4.0	.	3
176	6.98	376.04	64.28	20.33	268.43	-0.37	0.00	20.49	-0.38	45	37	148	1.85	4.0	.	3
177	25.20	-432.15	26.08	307.16	1244.43	-2.77	0.00	0.62	-1.78	72	105	149	1.97	4.0	.	3



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VARIABLE	N	MEAN	STD DEV	SUM	MINIMUM	MAXIMUM
CL2	177	23.59519774	16.87226369	4176.3500000	-2.23000000	81.20000000
DET1	175	705.17771429	1070.82048402	123406.1000000	-1257.39000000	6063.97000000
DET2	175	78.96834286	129.49281351	13819.4600000	-272.40000000	366.49000000
DET3	175	274.26114286	270.56652817	47995.7000000	-887.60000000	908.20000000
DET4	175	938.51554286	788.82771296	164240.2200000	-2795.10000000	2954.09000000
FD1	175	0.52794286	2.88991156	92.3900000	-5.46000000	12.28000000
FD2	175	1.90862857	2.87223998	334.0100000	0	10.36000000
FD13	175	227.09874286	278.05985462	39742.2800000	-1049.29000000	1486.46000000
ZNI	175	-0.57188571	0.77765592	-100.0800000	-2.09000000	3.47000000
HRS	173	53.58959538	100.56982595	9271.00000000	0	1235.00000000
FE	177	133.66101695	104.56135816	23658.0000000	4.00000000	959.00000000
VIS	175	156.64000000	33.80916015	27412.0000000	53.00000000	231.00000000
TAN	177	2.45790960	0.44490631	435.0500000	1.47000000	4.29000000
TS	177	3.86892655	2.61168604	684.8000000	0.40000000	12.00000000
CUR	139	6.54964029	2.35972776	910.4000000	2.50000000	16.10000000
GC	66	5.17424242	5.86940727	341.5000000	1.00000000	40.00000000

CORRELATION COEFFICIENTS / NUMBER OF OBSERVATIONS

CL2	CL2	IS	TAN	DET4	DET3	HRS	GC	FE	DET2	FD13	FD2	VIS	DF11
1.00000	0.77619	0.49210	0.46510	0.45529	0.31425	-0.28353	-0.26494	0.24451	0.21763	0.21318	0.16900	0.10513	0.06699
		177	177	175	175	173	66	177	175	175	175	175	175
ZU1	ZU1	CUR											
0.06072	-0.00203												
		175											
DET1	DET1	ZU1	FD1	FD13	GC	FE	TS	CL2	CUR	DET2	DET4	DET3	HRS
1.00000	0.66272	0.52420	0.17347	0.14708	-0.13321	-0.09047	0.06696	-0.06473	0.04923	-0.04473	-0.04012	-0.03156	0.02968
		175	175	175	66	175	175	175	137	175	175	175	172



## CORRELATION COEFFICIENTS / NUMBER OF OBSERVATIONS

DET1

FD2 0.02844  
175  
VIS 0.02516  
173

DET2

DET2 1.00000  
175  
DET4 0.80992  
175

DET3 0.72333  
175  
DET13 0.57211  
175  
FD13 0.49178  
175  
FD2 0.45096  
175  
FD1 0.32234  
175  
VIS 0.29374  
175  
FE 0.26209  
137  
COR 0.21765  
175  
CL2 0.19418  
175  
TAN 0.18630  
66  
GC 0.15006  
175  
ZNI 0.10545  
172  
HRS 0.10545  
172

DET3

IS 0.10279  
175  
DET1 0.04623  
175

DET3 1.00000  
175  
DET4 0.94905  
175  
DET13 0.72333  
175  
FD13 0.49178  
175  
FD2 0.45096  
175  
FD1 0.32234  
175  
VIS 0.29374  
175  
FE 0.26209  
137  
COR 0.21765  
175  
CL2 0.19418  
175  
TAN 0.18630  
66  
GC 0.15006  
175  
ZNI 0.10545  
172  
HRS 0.10545  
172

DET4

DET4 1.00000  
175  
DET1 0.04623  
175

DET4 1.00000  
175  
DET13 0.69024  
175  
FD13 0.49178  
175  
FD2 0.45096  
175  
FD1 0.32234  
175  
VIS 0.29374  
175  
FE 0.26209  
137  
COR 0.21765  
175  
CL2 0.19418  
175  
TAN 0.18630  
66  
GC 0.15006  
175  
ZNI 0.10545  
172  
HRS 0.10545  
172

DET4

DET4 1.00000  
175  
DET1 0.04623  
175

DET4 1.00000  
175  
DET13 0.69024  
175  
FD13 0.49178  
175  
FD2 0.45096  
175  
FD1 0.32234  
175  
VIS 0.29374  
175  
FE 0.26209  
137  
COR 0.21765  
175  
CL2 0.19418  
175  
TAN 0.18630  
66  
GC 0.15006  
175  
ZNI 0.10545  
172  
HRS 0.10545  
172

FD1

FD1 1.00000  
175  
DET1 0.52420  
175  
FE 0.11108  
175  
COR 0.08734  
137

FD1 1.00000  
175  
DET13 0.41738  
175  
FD13 0.36032  
175  
ZNI 0.34278  
175  
IS 0.34278  
175  
CL2 0.26464  
175  
CL2 0.26464  
175  
FD2 0.25384  
175  
VIS 0.20333  
175  
VIS 0.18251  
175  
TAN 0.15163  
175  
DFT3 0.14361  
66  
GC 0.12416  
175  
DET4 0.12416  
175  
HRS 0.12078  
172

FD2

FD2 1.00000  
175  
DET1 0.64719  
175  
ZNI 0.05023  
175

FD2 1.00000  
175  
DET13 0.59110  
175  
FD13 0.49178  
175  
DET12 0.49178  
175  
VIS 0.29678  
175  
VIS 0.25384  
175  
FD1 0.25384  
175  
GC 0.18407  
66  
CL2 0.16900  
175  
CL2 0.13342  
137  
CUH 0.12581  
175  
TAN 0.10657  
175  
FE 0.06695  
172  
HRS 0.05400  
175  
IS 0.05400  
175



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## CORRELATION COEFFICIENTS / NUMBER OF OBSERVATIONS

FD13

FD13	DET1	DET4	FD2	DET2	FE	DET3	TAN	DET2	CL2	DET1	TAN	IS	GC	COR
1.00000	0.73664	0.60174	0.58113	0.41738	0.43348	0.37282	0.37282	0.23316	0.17342	0.17342	0.07087	0.04924	-0.04720	-0.04321
175	175	175	175	175	175	175	175	175	175	175	175	175	66	137

FE	MRS
-0.04271	0.03834
175	177

ZNI

ZNI	DET1	FD13	FE	DET2	DET3	TAN	DET2	DET4	IS	GC	CL2	FD2
1.00000	0.62772	0.40349	0.35032	0.21202	0.16410	-0.15403	0.15006	0.12180	-0.11564	0.07807	0.06072	0.05023
175	175	175	175	175	175	175	175	175	175	66	175	175

MRS	COM
0.01053	0.00007
172	137

MRS

MRS	CL2	IS	FE	DET4	DET3	TAN	DET2	COR	FD2	GC	FD13	DET1
1.00000	0.31425	0.26928	0.23521	0.17703	0.16609	-0.12078	0.10545	0.08082	0.06695	-0.04523	0.03834	0.02968
173	173	173	173	172	172	172	172	135	172	65	172	172

VIS	ZNI
-0.02828	0.01054
171	172

FE

FE	DET2	DET4	TAN	CUR	CUR	MRS	ZNI	DET3	GC	IS	DET1	FD2
1.00000	0.29374	0.29055	0.26849	0.24190	0.23521	-0.21585	0.20910	-0.15646	0.14618	-0.13321	-0.11108	0.10637
177	175	175	177	139	173	175	175	66	177	175	175	175

VIS	FD13
-0.06597	-0.04271
175	175

VIS

VIS	GC	FD13	DET4	DET2	FE	DET3	ZNI	FD1	COR	CL2	FE	TAN	IS
1.00000	-0.38874	0.37287	-0.36444	0.33234	0.29676	-0.29107	-0.21202	-0.20333	-0.15610	-0.10513	-0.06597	-0.04717	0.03732
175	64	173	173	173	173	173	175	173	137	175	175	175	175

MRS	DET1
-0.02878	-0.02514
171	173

TAN

TAN	IS	CL2	DET4	DET3	FE	COR	GC	DET2	FD1	MRS	ZNI	FD2	FD13
1.00000	0.50616	0.49210	0.38063	0.34295	0.26849	0.22591	-0.21454	0.19418	-0.18251	0.16453	-0.15473	0.13581	0.07087
177	177	177	175	175	177	139	66	175	175	173	175	175	175







MAXIMUM P-SQUARE IMPROVEMENT FOR DEPENDENT VARIABLE VIS

WARNING: 2 OBSERVATIONS DELETED DUE TO MISSING VALUES.

STEP 1 VARIABLE C11 ENTERED R SQUARE = 0.1366798 C(P) = 39.00494209

DE	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
REGRESSION	27177.19586337	27177.19586337	27.23	0.0001
ERROR	171661.10873433	998.02970194		
TOTAL	198838.30459770			

R VALUE	STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	146.21515492			
C11	0.00007403	27177.19586337	27.23	0.0001

THE ABOVE MODEL IS THE BEST 1 VARIABLE MODEL FOUND.

STEP 2 VARIABLE C12 ENTERED P SQUARE = 0.14771015 C(P) = 38.33457604

DE	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
REGRESSION	29370.43582154	14685.21792577	14.82	0.0001
ERROR	169467.86874616	991.04016811		
TOTAL	198838.30459770			

R VALUE	STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	143.11594330			
C11	0.01022933	2193.23998817	21.21	0.0001
C12	0.00007433	24929.62603677	24.16	0.0001

THE ABOVE MODEL IS THE BEST 2 VARIABLE MODEL FOUND.

STEP 3 VARIABLE C14 ENTERED P SQUARE = 0.17192378 C(P) = 34.47259168

DE	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
REGRESSION	34185.03365853	11395.01121951	11.77	0.0001
ERROR	164658.27093917	968.94465258		
TOTAL	198838.30459770			

R VALUE	STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	141.56456252			
C11	0.02150550	8552.62172695	6.77	0.0101
C12	0.00007350	25400.66036682	26.23	0.0001
C14	-0.00004175	4814.59780700	4.97	0.0271

THE ABOVE MODEL IS THE BEST 3 VARIABLE MODEL FOUND.

STEP 4 VARIABLE C11 ENTERED R SQUARE = 0.17419151 C(P) = 35.92358900

DE	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
REGRESSION	34635.54360542	8658.98593211	8.91	0.0001
ERROR	164202.76099228	971.61160346		
TOTAL	198838.30459770			

R VALUE	STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	144.21258534			
C11	-0.06186849	450.90954989	0.46	0.4967
C12	0.02655647	6704.48408741	6.90	0.0094
C14	0.00007442	28445.7351962	28.60	0.0001
C11	-0.00004639	5251.58370824	5.61	0.0213







MAXIMUM F-SQUARE IMPROVEMENT FOR DEPENDENT VARIABLE VIS

STEP 6 VARIABLE CODE ENTERED

F SQUARE = 0.21197613

C(P) = 30.77614354

MEAN SQUARE

REGRESSION	DF	SUM OF SQUARES	STD ERROR	R VALUE	TYPE II SS	F	PROB>F
ERROR	167	42148.97471146	0.34094104	0.96817685	7024.82911857	7.49	0.0001
TOTAL	173	156460.32988630	0.06705285	0.04211720	838.25946040		
INTERCEPT	1	198838.30459770	0.00011503	0.00004966	7566.09825519	8.06	0.0051
C11	1	0.34094104	0.01155190	0.04211720	12443.32293805	13.28	0.0004
C12	1	0.06705285	0.00011503	0.00004966	15074.27122805	16.07	0.0001
C13	1	0.00011503	0.00004966	0.00004966	726.80154321	0.77	0.3801
C202	1	0.00004966	0.00005262	0.00004966	838.25946040	0.89	0.3467

STEP 6 C204 REPLACED BY C203

F SQUARE = 0.21315062

C(P) = 30.49180613

REGRESSION	DF	SUM OF SQUARES	STD ERROR	R VALUE	TYPE II SS	F	PROB>F
ERROR	167	42382.50829497	0.34094104	0.96817685	7063.75138316	7.54	0.0001
TOTAL	173	156455.79629873	0.06705285	0.04211720	936.86105568		
INTERCEPT	1	198838.30459770	0.00011503	0.00004966	7566.09825519	8.06	0.0052
C11	1	0.34094104	0.01155190	0.04211720	12443.32293805	13.28	0.0007
C12	1	0.06705285	0.00011503	0.00004966	15074.27122805	16.07	0.0035
C13	1	0.00011503	0.00004966	0.00004966	726.80154321	0.77	0.0001
C203	1	0.00004966	0.00005262	0.00004966	838.25946040	0.89	0.2375

STEP 6 C202 REPLACED BY C123

F SQUARE = 0.21554166

C(P) = 29.91299715

REGRESSION	DF	SUM OF SQUARES	STD ERROR	R VALUE	TYPE II SS	F	PROB>F
ERROR	167	42457.89933415	0.34094104	0.96817685	7142.98315369	7.65	0.0001
TOTAL	173	156980.30459770	0.06705285	0.04211720	934.01440517		
INTERCEPT	1	198838.30459770	0.00011503	0.00004966	7566.09825519	8.06	0.0040
C11	1	0.34094104	0.01155190	0.04211720	12443.32293805	13.28	0.0003
C12	1	0.06705285	0.00011503	0.00004966	15074.27122805	16.07	0.0025
C123	1	0.00011503	0.00004966	0.00004966	726.80154321	0.77	0.0003
C203	1	0.00004966	0.00005262	0.00004966	838.25946040	0.89	0.1645

IF ABOVE MODEL IS THE BEST, A VARIABLE MODEL FOUND.

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STEP 7 VARIABLE DET4 ENTERED

MAXIMUM R-SQUARE IMPROVEMENT FOR DEPENDENT VARIABLE VIS

C(P) = 27.46671628

DE	R VALUE	STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	151.5897576	0.36949568	5144.83315420	5.61	0.0180
CL1	-0.02755251	0.01773626	7477.9186163	8.88	0.0025
CL2	0.03016659	0.01773626	7709.4382851	8.40	0.0043
CL3	0.00000000	0.00000000	15662.36869829	17.07	0.0001
CL4	0.00000000	0.00000000	4725.62847143	5.15	0.0245
CL5	-0.00000000	0.00000000	8468.8724203	9.23	0.0028
CL6	-0.00000000	0.00000000	3651.84428931	3.98	0.0477

C(P) = 23.99498317

STEP 7 DET3 REPLACED BY DET4

DE	R VALUE	STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	154.57445588	0.31174605	3883.83832518	4.31	0.0394
CL1	-0.04742580	0.00353933	7329.43426130	9.74	0.0025
CL2	0.03016659	0.00353933	8269.7569021	9.74	0.0025
CL3	0.00000000	0.00000000	1911.51727249	1.68	0.0008
CL4	0.00000000	0.00000000	17154.73162187	19.05	0.0001
CL5	-0.00000000	0.00000000	1479.70820307	1.73	0.0005
CL6	-0.00000000	0.00000000	15705.04072056	17.44	0.0001

THE ABOVE MODEL IS THE BEST 7 VARIABLE MODEL FOUND.

C(P) = 22.40676723

STEP 8 VARIABLE DET4 ENTERED

DE	R VALUE	STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	157.22494196	0.31224381	4741.46681923	5.34	0.0221
CL1	-0.02755251	0.00652075	3595.12015763	7.85	0.0025
CL2	0.03016659	0.00652075	7041.0011453	7.85	0.0025
CL3	0.00000000	0.00000000	1143.80948326	1.23	0.0005
CL4	0.00000000	0.00000000	1940.2405529	3.46	0.0001
CL5	-0.00000000	0.00000000	2448.42933066	3.32	0.0703
CL6	-0.00000000	0.00000000	3682.44228409	4.15	0.0433
CL7	-0.00000000	0.00000000	11557.70933890	13.01	0.0004



MAXIMUM F-SQUARE IMPROVEMENT FOR DEPENDENT VARIABLE VIS

STEP 8 DET4 REPLA FOR BY C12

C(PI) = 22.2728248

SUM OF SQUARES

REGRESSION	R	MEAN SQUARE	F	PROB>F
165	0.8218	22305555	7.38	0.0001
173	0.8218	22305555		
TOTAL		198838.30455770		

INTERCEPT	R	MEAN SQUARE	F	PROB>F
151	0.8218	22305555	7.38	0.0001
165	0.8218	22305555		
173	0.8218	22305555		
TOTAL		198838.30455770		

STEP 9 FL22 REPLAED BY C111

C(PI) = 21.88498429

SUM OF SQUARES

REGRESSION	R	MEAN SQUARE	F	PROB>F
165	0.8218	22305555	7.38	0.0001
173	0.8218	22305555		
TOTAL		198838.30455770		

INTERCEPT	R	MEAN SQUARE	F	PROB>F
151	0.8218	22305555	7.38	0.0001
165	0.8218	22305555		
173	0.8218	22305555		
TOTAL		198838.30455770		

THE ABOVE MODEL IS THE BEST N VARIABLE MODEL FOUND.

STEP 9 VARIABLE OCT4 ENTERED

C(PI) = 21.12689761

SUM OF SQUARES

REGRESSION	R	MEAN SQUARE	F	PROB>F
165	0.8218	22305555	6.97	0.0001
173	0.8218	22305555		
TOTAL		198838.30455770		

INTERCEPT	R	MEAN SQUARE	F	PROB>F
151	0.8218	22305555	6.97	0.0001
165	0.8218	22305555		
173	0.8218	22305555		
TOTAL		198838.30455770		

THE ABOVE MODEL IS THE BEST N VARIABLE MODEL FOUND.

STEP 9 VARIABLE OCT4 ENTERED

C(PI) = 21.12689761

SUM OF SQUARES

REGRESSION	R	MEAN SQUARE	F	PROB>F
165	0.8218	22305555	6.97	0.0001
173	0.8218	22305555		
TOTAL		198838.30455770		

INTERCEPT	R	MEAN SQUARE	F	PROB>F
151	0.8218	22305555	6.97	0.0001
165	0.8218	22305555		
173	0.8218	22305555		
TOTAL		198838.30455770		



STEP 10 VARIABLE C10 ENTERED  
 MAXIMUM R-SQUARE IMPROVEMENT FOR DEPENDENT VARIABLE V15  
 F SQUARE = 0.28092071 C(P) = 22.0855015

DE		SUM OF SQUARES	MEAN SQUARE	F	PROB>F
REGRESSION	10	55857.79694274	5585.77969427	6.37	0.0001
ERROR	162	142980.50765496	877.1102856		
TOTAL	172	198838.30459770			
R VALUE		STD ERROR.	TYPE II SS	F	PROB>F
INTERCEPT	148.37290356	3.04151593	3154.76320070	3.60	0.0597
C11	-5.76804797	5.1114736	2174.87029116	2.94	0.0886
C12	9.42224149	0.00446161	2584.0760719	2.95	0.0880
NET14	0.0076115	0.0139878	1377.29870679	1.53	0.1807
C111	-0.01778270	0.04316211	1855.29508554	0.98	0.3248
C122	-0.02241244	0.00009347	1115.810553	12.84	0.0003
NET13	0.00037345	0.00000442	2265.7315856	25.84	0.0000
C123	0.00027541	0.00000190	4788.98672671	5.36	0.0207
NET2	0.00000000	0.00000000	3984.63837518	4.32	0.0350
C124	-0.00118160	0.00055379	13659.13909094	15.57	0.0001
NET34	-0.00006581	0.00001668			

THE ABOVE MODEL IS THE BEST 10 VARIABLE MODEL FOUND.

DE		SUM OF SQUARES	MEAN SQUARE	F	PROB>F
REGRESSION	11	57078.34703334	5188.94063939	5.93	0.0001
ERROR	162	141759.95756337	875.06146645		
TOTAL	172	198838.30459770			
R VALUE		STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	147.35110848	3.44727373	4357.35844898	4.98	0.0270
C11	-7.60251115	6.19122026	3224.20561400	4.27	0.0401
C12	12.70061385	0.00450158	3021.29171237	3.68	0.0620
NET15	0.00875222	0.01381153	2377.00001199	2.66	0.1049
C111	0.02566022	0.04488222	1278.07679177	1.53	0.2001
C122	-0.02723930	0.00009384	1079.79127371	17.58	0.0001
NET14	0.00023930	0.00004383	23870.66389072	6.85	0.0108
C123	0.00000483	0.00000187	5823.44048732	1.39	0.2393
C124	0.0222073	0.00188881	1220.55009060	2.29	0.1322
C125	-0.00513646	0.00335446	2001.76101439	17.00	0.0001
NET16	-0.00007185	0.00001742	14878.89855983		

STEP 11 NET14 REPLACED BY NET3

R SQUARE = 0.29285847 C(P) = 21.19498519

DE		SUM OF SQUARES	MEAN SQUARE	F	PROB>F
REGRESSION	11	58231.48127294	5293.77102481	6.10	0.0001
ERROR	162	141606.8233272	867.94335386		
TOTAL	172	198838.30459770			
R VALUE		STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	153.593005340	3.65520576	5998.59624566	6.91	0.0094
C11	-9.60926023				

DE		SUM OF SQUARES	MEAN SQUARE	F	PROB>F
REGRESSION	11	58231.48127294	5293.77102481	6.10	0.0001
ERROR	162	141606.8233272	867.94335386		
TOTAL	172	198838.30459770			
R VALUE		STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	153.593005340	3.65520576	5998.59624566	6.91	0.0094
C11	-9.60926023				

THE ABOVE MODEL IS THE BEST 11 VARIABLE MODEL FOUND.

DE		SUM OF SQUARES	MEAN SQUARE	F	PROB>F
REGRESSION	11	58231.48127294	5293.77102481	6.10	0.0001
ERROR	162	141606.8233272	867.94335386		
TOTAL	172	198838.30459770			
R VALUE		STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	153.593005340	3.65520576	5998.59624566	6.91	0.0094
C11	-9.60926023				



STEP 12 VARIABLE C122 ENTERED F SQUARE = 0.29691884 C(P) = 22.21199144

REGRESSION	DF	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
INTERCEPT	1	59038.83919580	4919.90326632	5.67	0.0001
C11	161	130709.66640100	868.31968088		
C12	173	199838.30459770			
REGRESSION	DF	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
INTERCEPT	1	3.66543702	3.66543702	6.52	0.0116
C11	161	6.42645557	4712.06315999	5.50	0.0203
C12	173	0.0210037	4957.03959323	5.71	0.0180
C13	173	0.02446960	2674.23671900	3.08	0.0812
C14	173	0.06235890	1623.24135855	1.87	0.1734
C15	173	0.00058266	14732.78498291	5.45	0.0208
C16	173	0.00017953	11100.55048287	12.78	0.0005
C17	173	0.00006696	8813.32711509	10.15	0.0017
C18	173	0.00426976	3529.20984567	4.06	0.0455
C19	173	0.00389137	4131.10389051	4.76	0.0306
C20	173	0.00004094	807.35792286	0.93	0.3364
C21	173	0.00006438	1113.13652026	12.80	0.0005

STEP 12 C122 REPLACED BY DET23 F SQUARE = 0.30073229 C(P) = 21.28877637

REGRESSION	DF	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
INTERCEPT	1	59797.09936635	4983.09161386	5.77	0.0001
C11	161	130709.66640100	868.31968088		
C12	173	199838.30459770			
REGRESSION	DF	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
INTERCEPT	1	1.36669226	1159.79286674	12.92	0.0004
C11	161	2.06502660	10439.34500138	12.09	0.0007
C12	173	0.07174989	3680.70933485	4.23	0.0410
C13	173	0.00248517	3736.16392979	4.35	0.0386
C14	173	0.00023510	5672.02679293	6.57	0.0113
C15	173	0.00005814	4067.05824272	4.71	0.0315
C16	173	0.00000231	10603.84032802	12.78	0.0006
C17	173	0.00207874	3265.91503603	3.78	0.0536
C18	173	0.00372603	3699.10970578	4.28	0.0401
C19	173	0.00016761	2381.50152910	2.76	0.0987
C20	173	0.00005541	3219.98823325	3.73	0.0552
C21	173	0.00001783	10201.91056156	11.81	0.0007

THE ABOVE MODEL IS THE BEST 12 VARIABLE MODEL FOUND.

STEP 13 VARIABLE C122 ENTERED R SQUARE = 0.30865314 C(P) = 21.37118393

REGRESSION	DF	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
INTERCEPT	1	61372.06712559	4720.92824042	5.49	0.0001
C11	161	137466.23747221	899.16398420		
C12	173	199838.30459770			
REGRESSION	DF	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
INTERCEPT	1	3.66624484	5747.17969724	6.69	0.0106
C11	161	6.44425332	4936.56236286	5.75	0.0177
C12	173	0.02204403	4440.51987375	5.17	0.0243
C13	173	0.01409540	2483.77669147	2.89	0.0910
C14	173	0.06155672	1574.96775915	1.93	0.1777
C15	173	0.00023760	4669.99502947	5.44	0.0210
C16	173	0.00005908	4348.39107084	5.06	0.0258
C17	173	0.00000251	11112.87765032	12.93	0.0004
C18	173	0.00069610	4447.39827566	5.88	0.0242
C19	173	0.00036576	4924.20292535	5.73	0.0178
C20	173	0.00016720	2333.22792969	2.72	0.1013
C21	173	0.00005656	2842.5568764	3.31	0.0708
C22	173	0.00001793	11075.56484134	12.89	0.0004

F



STATISTICAL ANALYSIS SYSTEM  
MAXIMUM R-SQUARE IMPROVEMENT FOR DEPENDENT VARIABLE VIS

THE ABOVE MODEL IS THE BEST 13-VARIABLE MODEL FOUND.

STEP 14 VARIABLE DFT4 ENTERED F SQUARE = 0.31314833 TTP = 22.28292387

DEFF	DF	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
REGRESSION	14	67265.88295094	4447.56305866	5.18	0.0001
ERROR	159	136572.42163476	858.9460803		
TOTAL	173	198838.30459770			

INTERCEPT	R VALUE	STD ERROR	TYPE II SS	F	PROB>F
INT1	147.05125766	3.65221689	5278.23424633	6.15	0.0142
INT2	-5.07831920	6.46382526	4578.72710043	5.33	0.0222
INT3	0.03386431	0.00772790	1324.29418107	1.54	0.2162
INT4	0.00586912	0.00577310	893.81583544	1.04	0.3092
INT5	0.02432222	0.01409981	2570.44572866	2.99	0.0856
INT6	-0.06181150	0.03535042	1598.69684271	1.86	0.1747
INT7	0.00056271	0.00023790	4602.65209587	5.36	0.0219
INT8	0.00014914	0.00006083	5162.6503074	6.01	0.0133
INT9	0.00000864	0.00000254	9925.11459084	11.56	0.0009
INT10	0.00455674	0.00222092	3599.17606718	4.19	0.0423
INT11	-0.0002299	0.00192604	4536.89344423	5.28	0.0229
INT12	0.0002811	0.00016863	2684.26910906	3.13	0.0790
INT13	-0.00011364	0.00005746	3359.57206027	3.91	0.0497
INT14	-0.00006335	0.00001795	10693.09071329	12.45	0.0005

STEP 14 DFT3 REPLACED BY DFT2 F SQUARE = 0.31444190 CIP = 21.96975862

DEFF	DF	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
REGRESSION	14	67523.09376686	4465.93526906	5.21	0.0001
ERROR	159	136315.21083084	857.32857001		
TOTAL	173	198838.30459770			

INTERCEPT	R VALUE	STD ERROR	TYPE II SS	F	PROB>F
INT1	141.75467233	3.45720545	4522.3859318	5.27	0.0229
INT2	-1.96324844	6.22222393	3930.99915985	4.59	0.0338
INT3	0.03386431	0.00772790	1324.29418107	1.54	0.2162
INT4	0.00586912	0.00577310	893.81583544	1.04	0.3092
INT5	0.02432222	0.01409981	2570.44572866	2.99	0.0856
INT6	-0.06181150	0.03535042	1598.69684271	1.86	0.1747
INT7	0.00056271	0.00023790	4602.65209587	5.36	0.0219
INT8	0.00014914	0.00006083	5162.6503074	6.01	0.0133
INT9	0.00000864	0.00000254	9925.11459084	11.56	0.0009
INT10	0.00455674	0.00222092	3599.17606718	4.19	0.0423
INT11	-0.0002299	0.00192604	4536.89344423	5.28	0.0229
INT12	0.0002811	0.00016863	2684.26910906	3.13	0.0790
INT13	-0.00011364	0.00005746	3359.57206027	3.91	0.0497
INT14	-0.00006335	0.00001795	10693.09071329	12.45	0.0005

THE ABOVE MODEL IS THE BEST 14 VARIABLE MODEL FOUND.



STATISTICAL ANALYSIS SYSTEM  
MAXIMUM R-SQUARE IMPROVEMENT FOR DEPENDENT VARIABLE VIS

STEP 15 VARIABLE C102 ENTERED

R SQUARE = 0.31931026

C(P) = 22.70115445

DE	SUM OF SQUARES	MEAN SQUARE	F	PROR>F
REGRESSION	63491.1137659	4232.74075805	4.94	0.0001
ERROR	135347.19322301	856.62780573		
TOTAL	198838.3069889			

R VALUE	STD ERROR	TYPE II SS	F	PROR>F
INTERCEPT	144.35734486	5724.20331670	6.22	0.0137
CL1	-8.97474499	4504.88244838	5.37	0.0217
CL2	14.75172537	2338.16450452	2.87	0.1005
NET2	0.08062511	3313.83767095	3.13	0.0510
CL11	0.00027997	2681.04257458	1.93	0.0788
CL12	0.22525839	1652.62717818	2.85	0.1668
NET12	-0.06325912	2443.28060542	6.16	0.0932
CL13	0.00042320	5280.08558810	10.66	0.0141
NET13	0.00015330	9135.14029864	1.13	0.0013
CL14	0.00000860	968.01760383	4.32	0.2894
CL15	0.00100449	3869.7070882	5.81	0.0351
NET14	0.00240773	4978.6865317	4.71	0.0171
CL16	0.00351742	4035.98117637	4.26	0.0315
NET16	0.0016752	3652.50826820	12.55	0.0406
CL17	-0.00012505	10662.5091366		0.0005
NET17	-0.00006317			

THE ABOVE MODEL IS THE BEST 15 VARIABLE MODEL FOUND.

STEP 16 VARIABLE C202 ENTERED		F SQUARE = 0.32405464	C(P) = 23.63288398		
DE		SUM OF SQUARES	MEAN SQUARE	F	PROR>F
REGRESSION	16	64442.42855539	4027.65178490	4.71	0.0001
ERROR	157	134395.87603931	856.02468815		
TOTAL	173	198838.30459470			

R VALUE	STD ERROR	TYPE II SS	F	PROR>F
INTERCEPT	146.58672425	5720.81988720	6.68	0.0106
CL1	-9.30895616	4517.61348597	5.69	0.0189
CL2	15.11203615	2332.38050673	2.87	0.1165
NET2	0.08674047	3319.21722977	3.07	0.0278
CL11	0.01125433	2652.428346935	1.93	0.0819
CL12	0.22525839	1655.94774037	2.85	0.2101
NET12	-0.05781299	2404.22755543	6.61	0.0111
CL13	0.00015032	5664.63881777	11.64	0.0009
NET13	0.00000898	9171.38900496	1.13	0.2937
CL14	0.00257735	3370.61378019	4.30	0.0337
CL15	0.00471033	3850.61187962	5.81	0.0293
CL16	0.00445090	4181.31187270	4.26	0.0283
CL17	-0.01411240	3586.06802191	4.87	0.0243
NET14	0.00728732	4189.46359674	12.51	0.0005
NET15	0.00017622			
NET16	0.00006132			
NET17	0.00001190			

THE ABOVE MODEL IS THE BEST 16 VARIABLE MODEL FOUND.



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STATISTICAL ANALYSIS SYSTEM  
MAXIMUM F-SQUARE IMPROVEMENT FOR DEPENDENT VARIABLE VIS  
STEP 17 VARIABLE DELETED ENTERED F SQUARED = 0.32464742 CIP1 = 25.49905974

REGRESSION	17	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
ERROR	156	64552.34182513	3797.19657818	4.41	0.0001
TOTAL	173	136285.02576837	860.80745364		
		198838.30459770			
INTERCEPT	R VALUE	STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	143.07348854				
CL1	-0.7411024	3.61596342	5622.22410401	6.53	0.0116
CL2	0.12186729	6.38798233	4823.80025101	5.60	0.0191
CL3	0.09344704	0.05821971	2217.67044586	3.58	0.1105
CL4	0.01942359	0.00551581	2993.77107834	3.58	0.0641
CL5	0.02330255	0.0113292	2041.11391151	2.37	0.1256
CL6	0.05463967	0.04676016	1188.30006114	1.38	0.2418
CL7	0.00000000	0.00000000	109.91327075	0.13	0.7213
CL8	0.00045794	0.00025326	2803.45053709	3.26	0.0731
CL9	0.00015982	0.00066218	5687.42208665	6.61	0.0111
CL10	0.00000000	0.00000000	8149.68922226	9.47	0.0021
CL11	-0.01614443	0.01497604	1002.84281001	1.17	0.2821
CL12	0.00000000	0.00000000	1002.84281001	1.17	0.2821
CL13	0.00000000	0.00000000	1002.84281001	1.17	0.2821
CL14	0.00000000	0.00000000	1002.84281001	1.17	0.2821
CL15	0.00000000	0.00000000	1002.84281001	1.17	0.2821
CL16	0.00000000	0.00000000	1002.84281001	1.17	0.2821
CL17	0.00000000	0.00000000	1002.84281001	1.17	0.2821
CL18	0.00000000	0.00000000	1002.84281001	1.17	0.2821
CL19	0.00000000	0.00000000	1002.84281001	1.17	0.2821
CL20	0.00000000	0.00000000	1002.84281001	1.17	0.2821
CL21	0.00000000	0.00000000	1002.84281001	1.17	0.2821
CL22	0.00000000	0.00000000	1002.84281001	1.17	0.2821
CL23	0.00000000	0.00000000	1002.84281001	1.17	0.2821
CL24	0.00000000	0.00000000	1002.84281001	1.17	0.2821
CL25	0.00000000	0.00000000	1002.84281001	1.17	0.2821
CL26	0.00000000	0.00000000	1002.84281001	1.17	0.2821
CL27	0.00000000	0.00000000	1002.84281001	1.17	0.2821
CL28	0.00000000	0.00000000	1002.84281001	1.17	0.2821
CL29	0.00000000	0.00000000	1002.84281001	1.17	0.2821
CL30	0.00000000	0.00000000	1002.84281001	1.17	0.2821
CL31	0.00000000	0.00000000	1002.84281001	1.17	0.2821
CL32	0.00000000	0.00000000	1002.84281001	1.17	0.2821
CL33	0.00000000	0.00000000	1002.84281001	1.17	0.2821
CL34	0.00000000	0.00000000	1002.84281001	1.17	0.2821
CL35	0.00000000	0.00000000	1002.84281001	1.17	0.2821
CL36	0.00000000	0.00000000	1002.84281001	1.17	0.2821
CL37	0.00000000	0.00000000	1002.84281001	1.17	0.2821
CL38	0.00000000	0.00000000	1002.84281001	1.17	0.2821
CL39	0.00000000	0.00000000	1002.84281001	1.17	0.2821
CL40	0.00000000	0.00000000	1002.84281001	1.17	0.2821
CL41	0.00000000	0.00000000	1002.84281001	1.17	0.2821
CL42	0.00000000	0.00000000	1002.84281001	1.17	0.2821
CL43	0.00000000	0.00000000	1002.84281001	1.17	0.2821
CL44	0.00000000	0.00000000	1002.84281001	1.17	0.2821
CL45	0.00000000	0.00000000	1002.84281001	1.17	0.2821
CL46	0.00000000	0.00000000	1002.84281001	1.17	0.2821
CL47	0.00000000	0.00000000	1002.84281001	1.17	0.2821
CL48	0.00000000	0.00000000	1002.84281001	1.17	0.2821
CL49	0.00000000	0.00000000	1002.84281001	1.17	0.2821
CL50	0.00000000	0.00000000	1002.84281001	1.17	0.2821
CL51	0.00000000	0.00000000	1002.84281001	1.17	0.2821
CL52	0.00000000	0.00000000	1002.84281001	1.17	0.2821
CL53	0.00000000	0.00000000	1002.84281001	1.17	0.2821
CL54	0.00000000	0.00000000	1002.84281001	1.17	0.2821
CL55	0.00000000	0.00000000	1002.84281001	1.17	0.2821
CL56	0.00000000	0.00000000	1002.84281001	1.17	0.2821
CL57	0.00000000	0.00000000	1002.84281001	1.17	0.2821
CL58	0.00000000	0.00000000	1002.84281001	1.17	0.2821
CL59	0.00000000	0.00000000	1002.84281001	1.17	0.2821
CL60	0.00000000	0.00000000	1002.84281001	1.17	0.2821
CL61	0.00000000	0.00000000	1002.84281001	1.17	0.2821
CL62	0.00000000	0.00000000	1002.84281001	1.17	0.2821
CL63	0.00000000	0.00000000	1002.84281001	1.17	0.2821
CL64	0.00000000	0.00000000	1002.84281001	1.17	0.2821
CL65	0.00000000	0.00000000	1002.84281001	1.17	0.2821
CL66	0.00000000	0.00000000	1002.84281001	1.17	0.2821
CL67	0.00000000	0.00000000	1002.84281001	1.17	0.2821
CL68	0.00000000	0.00000000	1002.84281001	1.17	0.2821
CL69	0.00000000	0.00000000	1002.84281001	1.17	0.2821
CL70	0.00000000	0.00000000	1002.84281001	1.17	0.2821
CL71	0.00000000	0.00000000	1002.84281001	1.17	0.2821
CL72	0.00000000	0.00000000	1002.84281001	1.17	0.2821
CL73	0.00000000	0.00000000	1002.84281001	1.17	0.2821
CL74	0.00000000	0.00000000	1002.84281001	1.17	0.2821
CL75	0.00000000	0.00000000	1002.84281001	1.17	0.2821
CL76	0.00000000	0.00000000	1002.84281001	1.17	0.2821
CL77	0.00000000	0.00000000	1002.84281001	1.17	0.2821
CL78	0.00000000	0.00000000	1002.84281001	1.17	0.2821
CL79	0.00000000	0.00000000	1002.84281001	1.17	0.2821
CL80	0.00000000	0.00000000	1002.84281001	1.17	0.2821
CL81	0.00000000	0.00000000	1002.84281001	1.17	0.2821
CL82	0.00000000	0.00000000	1002.84281001	1.17	0.2821
CL83	0.00000000	0.00000000	1002.84281001	1.17	0.2821
CL84	0.00000000	0.00000000	1002.84281001	1.17	0.2821
CL85	0.00000000	0.00000000	1002.84281001	1.17	0.2821
CL86	0.00000000	0.00000000	1002.84281001	1.17	0.2821
CL87	0.00000000	0.00000000	1002.84281001	1.17	0.2821
CL88	0.00000000	0.00000000	1002.84281001	1.17	0.2821
CL89	0.00000000	0.00000000	1002.84281001	1.17	0.2821
CL90	0.00000000	0.00000000	1002.84281001	1.17	0.2821
CL91	0.00000000	0.00000000	1002.84281001	1.17	0.2821
CL92	0.00000000	0.00000000	1002.84281001	1.17	0.2821
CL93	0.00000000	0.00000000	1002.84281001	1.17	0.2821
CL94	0.00000000	0.00000000	1002.84281001	1.17	0.2821
CL95	0.00000000	0.00000000	1002.84281001	1.17	0.2821
CL96	0.00000000	0.00000000	1002.84281001	1.17	0.2821
CL97	0.00000000	0.00000000	1002.84281001	1.17	0.2821
CL98	0.00000000	0.00000000	1002.84281001	1.17	0.2821
CL99	0.00000000	0.00000000	1002.84281001	1.17	0.2821
CL100	0.00000000	0.00000000	1002.84281001	1.17	0.2821

STEP 17 C702 REPLICATED BY DEFT14 R SQUARE = 0.36359602 CIP1 = 16.06982286

REGRESSION	DF	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
ERROR	17	72298.8153812	4252.75384930	5.24	0.0001
TOTAL	173	126541.48915556	811.6339205		
		198838.3045976			
INTERCEPT	R VALUE	STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	130.06212521				
CL1	-0.7411024	3.65932646	9453.232329270	11.65	0.0008
CL2	0.12186729	6.38798233	11957.92121471	11.65	0.0008
CL3	0.09344704	0.05529623	10000.00000000	1	0.0019
CL4	0.01942359	0.00621776	3737.038220073	1	0.0019
CL5	0.02330255	0.0113292	1627.038220073	1	0.0019
CL6	0.05463967	0.00000000	1235.09001953	1	0.0019
CL7	0.00000000	0.00000000	1235.09001953	1	0.0019
CL8	0.00045794	0.00004771	1235.09001953	1	0.0019
CL9	0.00015982	0.00008316	1235.09001953	1	0.0019
CL10	0.00000000	0.00000000	10156.032496055	1	0.0019
CL11	-0.00012680	0.00000778	77.745542266	0.01	0.9132
CL12	0.00034603	0.00025613	231.06253391	0.01	0.9132
CL13	0.0126337	0.00455339	1302.19022384	0.01	0.9132
CL14	0.0112899	0.00000255	1302.19022384	0.01	0.9132
CL15	0.0007415	0.00017415	1302.19022384	0.01	0.9132
CL16	0.0007066	0.0005561	1302.19022384	0.01	0.9132
CL17	0.00010140	0.00002301	1302.19022384	0.01	0.9132



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STEP 17 CINO2 REPLACED BY DEFT12  
 MAXIMUM P-SQUARE IMPROVEMENT FOR DEPENDENT VARIABLE VIS  
 F SQUARE = 0.37355575 C(P) = 13.65862791

STATISTICAL ANALYSIS SYSTEM  
 SUM OF SQUARES MEAN SQUARE TYPE II SS PROBDF

DE	R VALUE	STD ERROR	TYPE II SS	F	PROBDF
INTERCEPT					
DE1	0.74277	0.19156803	4369.24656283	5.47	0.0001
DE2	0.12451	0.1302967	799.46867327		
DE3	0.19883	0.3045577			
DE4	0.07667	0.07667			
DE5	0.07667	0.07667			
DE6	0.07667	0.07667			
DE7	0.07667	0.07667			
DE8	0.07667	0.07667			
DE9	0.07667	0.07667			
DE10	0.07667	0.07667			
DE11	0.07667	0.07667			
DE12	0.07667	0.07667			
DE13	0.07667	0.07667			
DE14	0.07667	0.07667			
DE15	0.07667	0.07667			
DE16	0.07667	0.07667			
DE17	0.07667	0.07667			
DE18	0.07667	0.07667			
DE19	0.07667	0.07667			
DE20	0.07667	0.07667			
DE21	0.07667	0.07667			
DE22	0.07667	0.07667			
DE23	0.07667	0.07667			
DE24	0.07667	0.07667			
DE25	0.07667	0.07667			
DE26	0.07667	0.07667			
DE27	0.07667	0.07667			
DE28	0.07667	0.07667			
DE29	0.07667	0.07667			
DE30	0.07667	0.07667			
DE31	0.07667	0.07667			
DE32	0.07667	0.07667			
DE33	0.07667	0.07667			
DE34	0.07667	0.07667			
DE35	0.07667	0.07667			
DE36	0.07667	0.07667			
DE37	0.07667	0.07667			
DE38	0.07667	0.07667			
DE39	0.07667	0.07667			
DE40	0.07667	0.07667			
DE41	0.07667	0.07667			
DE42	0.07667	0.07667			
DE43	0.07667	0.07667			
DE44	0.07667	0.07667			
DE45	0.07667	0.07667			
DE46	0.07667	0.07667			
DE47	0.07667	0.07667			
DE48	0.07667	0.07667			
DE49	0.07667	0.07667			
DE50	0.07667	0.07667			
DE51	0.07667	0.07667			
DE52	0.07667	0.07667			
DE53	0.07667	0.07667			
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DE56	0.07667	0.07667			
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DE58	0.07667	0.07667			
DE59	0.07667	0.07667			
DE60	0.07667	0.07667			
DE61	0.07667	0.07667			
DE62	0.07667	0.07667			
DE63	0.07667	0.07667			
DE64	0.07667	0.07667			
DE65	0.07667	0.07667			
DE66	0.07667	0.07667			
DE67	0.07667	0.07667			
DE68	0.07667	0.07667			
DE69	0.07667	0.07667			
DE70	0.07667	0.07667			
DE71	0.07667	0.07667			
DE72	0.07667	0.07667			
DE73	0.07667	0.07667			
DE74	0.07667	0.07667			
DE75	0.07667	0.07667			
DE76	0.07667	0.07667			
DE77	0.07667	0.07667			
DE78	0.07667	0.07667			
DE79	0.07667	0.07667			
DE80	0.07667	0.07667			
DE81	0.07667	0.07667			
DE82	0.07667	0.07667			
DE83	0.07667	0.07667			
DE84	0.07667	0.07667			
DE85	0.07667	0.07667			
DE86	0.07667	0.07667			
DE87	0.07667	0.07667			
DE88	0.07667	0.07667			
DE89	0.07667	0.07667			
DE90	0.07667	0.07667			
DE91	0.07667	0.07667			
DE92	0.07667	0.07667			
DE93	0.07667	0.07667			
DE94	0.07667	0.07667			
DE95	0.07667	0.07667			
DE96	0.07667	0.07667			
DE97	0.07667	0.07667			
DE98	0.07667	0.07667			
DE99	0.07667	0.07667			
DE100	0.07667	0.07667			

STEP 17 DEFT12 REPLACED BY DEFT13 C(P) = 12.46942918

DE	R VALUE	STD ERROR	TYPE II SS	F	PROBDF
INTERCEPT					
DE1	0.74277	0.19156803	4369.24656283	5.55	0.0001
DE2	0.12451	0.1302967	799.46867327		
DE3	0.19883	0.3045577			
DE4	0.07667	0.07667			
DE5	0.07667	0.07667			
DE6	0.07667	0.07667			
DE7	0.07667	0.07667			
DE8	0.07667	0.07667			
DE9	0.07667	0.07667			
DE10	0.07667	0.07667			
DE11	0.07667	0.07667			
DE12	0.07667	0.07667			
DE13	0.07667	0.07667			
DE14	0.07667	0.07667			
DE15	0.07667	0.07667			
DE16	0.07667	0.07667			
DE17	0.07667	0.07667			
DE18	0.07667	0.07667			
DE19	0.07667	0.07667			
DE20	0.07667	0.07667			
DE21	0.07667	0.07667			
DE22	0.07667	0.07667			
DE23	0.07667	0.07667			
DE24	0.07667	0.07667			
DE25	0.07667	0.07667			
DE26	0.07667	0.07667			
DE27	0.07667	0.07667			
DE28	0.07667	0.07667			
DE29	0.07667	0.07667			
DE30	0.07667	0.07667			
DE31	0.07667	0.07667			
DE32	0.07667	0.07667			
DE33	0.07667	0.07667			
DE34	0.07667	0.07667			
DE35	0.07667	0.07667			
DE36	0.07667	0.07667			
DE37	0.07667	0.07667			
DE38	0.07667	0.07667			
DE39	0.07667	0.07667			
DE40	0.07667	0.07667			
DE41	0.07667	0.07667			
DE42	0.07667	0.07667			
DE43	0.07667	0.07667			
DE44	0.07667	0.07667			
DE45	0.07667	0.07667			
DE46	0.07667	0.07667			
DE47	0.07667	0.07667			
DE48	0.07667	0.07667			
DE49	0.07667	0.07667			
DE50	0.07667	0.07667			
DE51	0.07667	0.07667			
DE52	0.07667	0.07667			
DE53	0.07667	0.07667			
DE54	0.07667	0.07667			
DE55	0.07667	0.07667			
DE56	0.07667	0.07667			
DE57	0.07667	0.07667			
DE58	0.07667	0.07667			
DE59	0.07667	0.07667			
DE60	0.07667	0.07667			
DE61	0.07667	0.07667			
DE62	0.07667	0.07667			
DE63	0.07667	0.07667			
DE64	0.07667	0.07667			
DE65	0.07667	0.07667			
DE66	0.07667	0.07667			
DE67	0.07667	0.07667			
DE68	0.07667	0.07667			
DE69	0.07667	0.07667			
DE70	0.07667	0.07667			
DE71	0.07667	0.07667			
DE72	0.07667	0.07667			
DE73	0.07667	0.07667			
DE74	0.07667	0.07667			
DE75	0.07667	0.07667			
DE76	0.07667	0.07667			
DE77	0.07667	0.07667			
DE78	0.07667	0.07667			
DE79	0.07667	0.07667			
DE80	0.07667	0.07667			
DE81	0.07667	0.07667			
DE82	0.07667	0.07667			
DE83	0.07667	0.07667			
DE84	0.07667	0.07667			
DE85	0.07667	0.07667			
DE86	0.07667	0.07667			
DE87	0.07667	0.07667			
DE88	0.07667	0.07667			
DE89	0.07667	0.07667			
DE90	0.07667	0.07667			
DE91	0.07667	0.07667			
DE92	0.07667	0.07667			
DE93	0.07667	0.07667			
DE94	0.07667	0.07667			
DE95	0.07667	0.07667			
DE96	0.07667	0.07667			
DE97	0.07667	0.07667			
DE98	0.07667	0.07667			
DE99	0.07667	0.07667			
DE100	0.07667	0.07667			



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STATISTICAL ANALYSIS SYSTEM  
MAXIMUM R-SQUARE IMPROVEMENT FOR DEPENDENT VARIABLE VIS

STEP 17 DET2 REPLACED BY C101 F SQAPE = 0.37693670 CPI = 12.84011802

DE	R VALUE	SUM OF SQUARES	STO ERROR	TYPE II SS	F	PROB>F
REGRESSION	17	74949.4568979		4408.79145234	5.55	0.0001
ERROR	156	123888.8490791		794.15929428		
TOTAL	173	198838.3059770				
DE	R VALUE	SUM OF SQUARES	STO ERROR	TYPE II SS	F	PROB>F
INTERCEPT	135.14505627					
C11	-13.19414173	3.98118252		8722.59114995	10.98	0.0011
C12	22.46164822	6.97180050		8243.29729541	10.38	0.0016
C13	0.02466383	0.00669448		11043.23748956	13.91	0.0003
C14	0.04713463	0.01601530		4987.22211555	6.28	0.0132
C15	-0.10772007	0.04902308		3834.42074377	4.83	0.0295
C16	0.00035548	0.00023516		1814.78259994	2.32	0.1326
C17	0.00036430	0.00009307		12167.03273955	15.32	0.0001
C18	0.0000816	0.00000285		6335.91818005	7.98	0.0054
C19	0.00004149	0.00001178		3358.20904957	0.45	0.5028
C20	-0.00561133	0.00239236		4199.58243327	5.29	0.0228
C21	-0.01178807	0.00429755		5985.51523927	7.54	0.0068
C22	0.00010893	0.00004031		3340.22570541	6.79	0.0101
C23	-0.00001218	0.00001196		822.97682348	1.04	0.3103
C24	-0.00001219	0.00000483		5065.05851329	6.38	0.0126
C25	0.00000065	0.00017107		223.01976556	0.28	0.5969
C26	-0.00000475	0.00005005		1412.22471172	1.78	0.1843
C27	-0.00010076	0.00002749		10665.91266814	13.43	0.0003

STEP 17 DET2 REPLACED BY DET1 F SQAPE = 0.37834853 CPI = 12.49832168

DE	R VALUE	SUM OF SQUARES	STO ERROR	TYPE II SS	F	PROB>F
REGRESSION	17	75230.18077465		4425.30475145	5.58	0.0001
ERROR	156	123608.12382301		792.35976810		
TOTAL	173	198838.3059770				
DE	R VALUE	SUM OF SQUARES	STO ERROR	TYPE II SS	F	PROB>F
INTERCEPT	129.46056989					
C11	-13.19414173	4.04501851		9347.09144110	11.80	0.0008
C12	22.46164822	7.13727559		8827.29006306	11.17	0.0010
C13	0.02466383	0.00669448		11043.23748956	13.91	0.0003
C14	0.04713463	0.01601530		4987.22211555	6.28	0.0132
C15	-0.10772007	0.04902308		3834.42074377	4.83	0.0295
C16	0.00035548	0.00023516		1814.78259994	2.32	0.1326
C17	0.00036430	0.00009307		12167.03273955	15.32	0.0001
C18	0.0000816	0.00000285		6335.91818005	7.98	0.0054
C19	0.00004149	0.00001178		3358.20904957	0.45	0.5028
C20	-0.00561133	0.00239236		4199.58243327	5.29	0.0228
C21	-0.01178807	0.00429755		5985.51523927	7.54	0.0068
C22	0.00010893	0.00004031		3340.22570541	6.79	0.0101
C23	-0.00001218	0.00001196		822.97682348	1.04	0.3103
C24	-0.00001219	0.00000483		5065.05851329	6.38	0.0126
C25	0.00000065	0.00017107		223.01976556	0.28	0.5969
C26	-0.00000475	0.00005005		1412.22471172	1.78	0.1843
C27	-0.00010076	0.00002749		10665.91266814	13.43	0.0003

THE ABOVE MODEL IS THE BEST 17 VARIABLE MODEL FOUND.



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STEP 1A VARIABLE DET11 ENTERED

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STATISTICAL ANALYSIS SYSTEM

MAXIMUM R-SQUARE IMPROVEMENT FOR DEPENDENT VARIABLE VIS

R SQUARE = 0.38189539 C(P) = 13.63964809

REGRESSION	IF	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
INTERCEPT	1A	75935.4317488	4218.63507639	5.32	0.0001
DET1	155	122902.87322282	792.92176273		
TOTAL	173	198838.3049716			
	A VALUE	STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	128.91404801	4.15538368	10015.20139147	12.63	0.0005
CL1	-14.76814011	7.2725230	9459.91659260	11.93	0.0007
CL2	25.12009687	0.0134249	1208.98362132	1.52	0.2188
DET1	0.01655873	0.00594195	1268.84705859	1.52	0.2188
CL11	0.02751949	0.01784610	6363.2745831	8.03	0.0022
CL12	0.05055611	0.05229020	5001.62608770	6.31	0.0130
CL13	-0.13122904	0.00600024	705.25060019	0.89	0.3471
DET11	0.00000004	0.00033378	1760.08244918	1.84	0.1768
DET12	0.00000000	0.00008392	18739.12744982	23.63	0.0001
DET13	0.00000000	0.00000072	5093.36347258	6.42	0.0123
CL14	-0.00003389	0.00002817	1113.86069669	1.40	0.2377
CL15	3.00572764	0.00232320	4430.00387091	5.59	0.0193
CL16	-0.0124427	0.00440485	6532.64901022	8.24	0.0047
DET11	0.00000000	0.00005028	1912.68319561	2.41	0.1224
CL17	-0.00001650	0.00001659	784.02311526	0.99	0.3213
DET12	-0.00000072	0.00000530	2664.78475338	3.36	0.0687
DET13	-0.00004804	0.00004172	1051.32117335	1.33	0.2513
DET14	-0.00010373	0.00002728	11466.71715601	14.46	0.0002

THE ABOVE MODEL IS THE BEST 1A VARIABLE MODEL FOUND.



STEP 1 VARIABLE CL2 ENTERED  
 ANALYTICAL ANALYSIS SYSTEM  
 MAXIMUM F-SQUARE IMPROVEMENT FOR DEPENDENT VARIABLE TAN  
 F SQUARE = 0.23093467 C(P) = 42.03221617

REGRESSION  
 F-SQ  
 TOTAL

INTERCEPT  
 CL2

THE ABOVE MODEL IS THE BEST 1 VARIABLE MODEL FOUND.

STEP 2 VARIABLE CL2 ENTERED

REGRESSION  
 F-SQ  
 TOTAL

INTERCEPT  
 CL2  
 CL3

STEP 2 CL2 REPLACED BY CL1

REGRESSION  
 F-SQ  
 TOTAL

INTERCEPT  
 CL1  
 CL3

THE ABOVE MODEL IS THE BEST 2 VARIABLE MODEL FOUND.

STEP 3 VARIABLE DET23 ENTERED

REGRESSION  
 F-SQ  
 TOTAL

INTERCEPT  
 CL1  
 CL3

THE ABOVE MODEL IS THE BEST 3 VARIABLE MODEL FOUND.

STEP 3

REGRESSION  
 F-SQ  
 TOTAL

INTERCEPT  
 CL1  
 CL3



# STATISTICAL ANALYSIS SYSTEM

# MAXIMUM F-SOURCE IMPROVEMENT FOR DEPENDENT VARIABLES TAN

$C(P) = 23.34764195$

STEP 4 VARIATION: INTEREST

REGRESSION	DF	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
1	4	10.93062558	2.73265889	20.08	0.0001
2	171	23.26644567	0.13606401		
TOTAL	174	34.19758125			

R VALUE	STD ERROR	TYPE III SS	F	PROB>F
0.85726616	0.00376626	1.23739067	9.83	0.0020
0.01182774	0.00007568	0.01566463	3.05	0.0823
-0.00132227	0.00000119	0.00000073	5.04	0.0251
0.00000075	0.00000032	0.00000014	6.03	0.0151

$C(P) = 20.85318954$

	DF	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
REGRESSION	4	11.23715267	2.80928817	20.92	0.0001
ERROR	171	22.90427859			
TOTAL	175	34.14143126	0.1347151		

	R VALUE	STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	1.81161292	0.00405168	2.1439291	15.97	0.0001
CR13	-0.01615181	0.00016151	0.1285823	0.39	0.0043
CR14	-0.00476747	0.00038064	0.0382825	0.89	0.0105
CR15	-0.00326977	0.00000185	2.17001209	16.16	0.0001

**C(P) = 20.55936099**

	DF	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
REGRESSION	4	11.2325818	2.8081455	21.02	0.0001
ERROR	171	10.642307			
TOTAL	175	22.874889	0.1306037		

	R VALUE	STD ERROR	TYPE III SS	F	PROB>F
INTERCEPT	1.80012650	0.00405457	2.31784619	17.29	0.0001
CI1	0.01686085	0.00016004	1.19531276	8.62	0.0032
CI2	-0.00745492	0.00008121	1.05119818	7.85	0.0057
CI3	-0.00027746	0.00003033	2.20617759	16.46	0.0001
CI4	0.00011341				

THE ABOVE MODEL IS THE BEST 4 VARIABLE MODEL FOUND.

CIP) = 18.58812472

	OF	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
REGRESSION	5	11.76124175	2.3524825	17.82	0.0001
ERROR	170	22.62633950	0.13315187		
TOTAL	175	34.38758125			

	A VALUE	STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	1.7892257				
AGE	0.0162090	0.0040371	2.1306050	16.14	0.0001
SEX	-0.0022691	0.0001686	0.8460714	9.51	0.0123
AGE <sup>2</sup>	-0.0007507	0.0000805	0.9495864	7.50	0.0068
AGE <sup>3</sup>	0.0000077	0.0000034	1.5016783	11.38	0.0009
AGE <sup>4</sup>	0.0000036	0.0000003	0.4479837	13.70	0.0062

THE ABOVE MODEL IS THE BEST & VERIFIABLE FININD.



STATISTICAL ANALYSIS SYSTEM  
MAXIMUM R-SQUARE IMPROVEMENT FOR DEPENDENT VARIABLE TAN  
STEP 6 VARIABLE DET4 ENTERED R SQUARE = 0.36163412 CIP1 = 15.65833138

SUM OF SQUARES		MEAN SQUARE		F		PROB>F	
DE	REGRESSION	DE	REGRESSION	DE	REGRESSION	DE	REGRESSION
16	12.36701235	16	12.36701235	15.96	0.0001		
175	21.83056890	175	21.83056890				
	34.19779125		34.19779125				
STD ERROR		TYPE II SS		F		PROB>F	
DE	REGRESSION	DE	REGRESSION	DE	REGRESSION	DE	REGRESSION
16	0.00414522	16	0.00414522	20.18	0.0001		
175	0.00017530	175	0.00017530	10.08	0.0018		
	0.00008041		0.00008041	9.10	0.0029		
	0.00000000		0.00000000	8.12	0.0049		
	0.00000000		0.00000000	6.99	0.0090		
	0.00000000		0.00000000	4.69	0.0317		

SUM OF SQUARES		MEAN SQUARE		F		PROB>F	
DE	REGRESSION	DE	REGRESSION	DE	REGRESSION	DE	REGRESSION
16	12.57921242	16	12.57921242	16.39	0.0001		
175	21.61836983	175	21.61836983				
	34.19758125		34.19758125				

SUM OF SQUARES		MEAN SQUARE		F		PROB>F	
DE	REGRESSION	DE	REGRESSION	DE	REGRESSION	DE	REGRESSION
16	17.78927353	16	17.78927353	14.34	0.0001		
175	21.40830772	175	21.40830772				
	34.19758125		34.19758125				

SUM OF SQUARES		MEAN SQUARE		F		PROB>F	
DE	REGRESSION	DE	REGRESSION	DE	REGRESSION	DE	REGRESSION
16	17.78927353	16	17.78927353	14.34	0.0001		
175	21.40830772	175	21.40830772				
	34.19758125		34.19758125				

SUM OF SQUARES		MEAN SQUARE		F		PROB>F	
DE	REGRESSION	DE	REGRESSION	DE	REGRESSION	DE	REGRESSION
16	17.78927353	16	17.78927353	14.34	0.0001		
175	21.40830772	175	21.40830772				
	34.19758125		34.19758125				

SUM OF SQUARES		MEAN SQUARE		F		PROB>F	
DE	REGRESSION	DE	REGRESSION	DE	REGRESSION	DE	REGRESSION
16	17.78927353	16	17.78927353	14.34	0.0001		
175	21.40830772	175	21.40830772				
	34.19758125		34.19758125				

THE ABOVE MODEL IS THE BEST AVAILABLE MODEL FOUND.



STATISTICAL ANALYSIS SYSTEM  
MAXIMUM R-SQUARE IMPROVEMENT FOR DEPENDENT VARIABLE TAN

STEP 7 CFT24 REPLACED BY C2P4

P SQUARE = 0.37482571 C(P) = 13.98709054

SUM OF SQUARES		MEAN SQUARE		F		PROB>F	
DF							
REGRESSION	7	12.81843263	1.83116180	14.39	0.0001		
ERROR	169	21.37581252	0.12725862				
TOTAL	175	34.19758125					
STD ERROR		TYPE II SS		F		PROB>F	
DF	R VALUE						
INTERCEPT	1.78735761	0.00397647	2.2525701	17.49	0.0001		
C1	0.0166308	0.00007512	0.66355842	13.33	0.0001		
C13	-0.00138512	0.00000000	0.00000000	0.00	0.0000		
C14	0.00020643	0.00000000	0.00000000	0.00	0.0000		
C17	-0.00028937	0.00000000	0.00000000	0.00	0.0000		
C20	0.00003772	0.00000000	0.00000000	0.00	0.0000		
C204	-0.00000486	0.00000000	0.00000000	0.00	0.0000		
C123	1.00000000	0.00000000	0.00000000	0.00	0.0000		

STEP 7 C203 REPLACED BY C1D3

R SQUARE = 0.37625058 C(P) = 13.59054543

SUM OF SQUARES		MEAN SQUARE		F		PROB>F	
DF							
REGRESSION	7	12.86685590	1.83812284	14.48	0.0001		
ERROR	168	21.37072135	0.12696859				
TOTAL	175	34.19758125					
STD ERROR		TYPE II SS		F		PROB>F	
DF	R VALUE						
INTERCEPT	1.82162254	0.00397647	1.72694659	13.60	0.0003		
C1	0.0166308	0.00007512	0.66355842	13.74	0.0003		
C13	-0.00138512	0.00000000	0.00000000	0.00	0.0000		
C14	0.00020643	0.00000000	0.00000000	0.00	0.0000		
C17	-0.00028937	0.00000000	0.00000000	0.00	0.0000		
C20	0.00003772	0.00000000	0.00000000	0.00	0.0000		
C204	-0.00000486	0.00000000	0.00000000	0.00	0.0000		
C123	1.00000000	0.00000000	0.00000000	0.00	0.0000		

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STEP 7 C13 REPLACED BY C12

R SQUARE = 0.38200928 C(P) = 11.98749148

SUM OF SQUARES		MEAN SQUARE		F		PROB>F	
DF							
REGRESSION	7	13.06379123	1.86625618	14.84	0.0001		
ERROR	168	21.37072135	0.12696859				
TOTAL	175	34.19758125					
STD ERROR		TYPE II SS		F		PROB>F	
DF	R VALUE						
INTERCEPT	1.77420488	0.00397647	1.92387991	15.29	0.0001		
C1	0.0166308	0.00007512	1.0557423	16.34	0.0001		
C13	-0.00138512	0.00000000	0.00000000	0.00	0.0000		
C14	0.00020643	0.00000000	0.00000000	0.00	0.0000		
C17	-0.00028937	0.00000000	0.00000000	0.00	0.0000		
C20	0.00003772	0.00000000	0.00000000	0.00	0.0000		
C204	-0.00000486	0.00000000	0.00000000	0.00	0.0000		
C123	1.00000000	0.00000000	0.00000000	0.00	0.0000		

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STEP 7 DELETED BY CL02 P-SQUARE = 0.3877125 C(P) = 11.51357009

DE	DF	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
REGRESSION	7	13.12207161	1.87458252	14.94	0.0001
ERROR	168	21.07550364	0.12544943		
TOTAL	175	34.19758125			

R VALUE	STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	1.75417991	2.29243384	18.27	0.0001
CL1	0.00748866	2.08600371	16.63	0.0001
CL2	0.00080868	1.02591328	8.18	0.0048
CL3	0.00083174	1.06834571	8.50	0.0048
CL4	0.00000460	0.21870978	1.73	0.0436
CL5	0.00000460	0.21870978	1.73	0.0436
CL6	0.00000180	1.9725317	15.72	0.0001

THE ABOVE MODEL IS THE BEST 7 VARIABLE MODEL FOUND.

DE	DF	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
REGRESSION	8	13.25888565	1.65736121	13.22	0.0001
ERROR	167	20.93869156	0.12538139		
TOTAL	175	34.19758125			

R VALUE	STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	1.76224785	2.35782286	18.81	0.0001
CL1	0.00750361	2.08600371	16.63	0.0001
CL2	0.00067113	1.02591328	8.18	0.0048
CL3	0.00041264	1.06834571	8.50	0.0048
CL4	0.00080868	1.06834571	8.50	0.0048
CL5	0.00033228	1.9725317	15.72	0.0001
CL6	0.00000460	0.21870978	1.73	0.0436
CL7	0.00000460	0.21870978	1.73	0.0436
CL8	0.00000180	1.9725317	15.72	0.0001

DE	DF	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
REGRESSION	8	13.33156257	1.66644532	13.34	0.0001
ERROR	167	20.86601668	0.12494622		
TOTAL	175	34.19758125			

R VALUE	STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	1.81900267	2.49269738	19.95	0.0001
CL1	0.00750361	2.08600371	16.63	0.0001
CL2	0.00067113	1.02591328	8.18	0.0048
CL3	0.00041264	1.06834571	8.50	0.0048
CL4	0.00080868	1.06834571	8.50	0.0048
CL5	0.00033228	1.9725317	15.72	0.0001
CL6	0.00000460	0.21870978	1.73	0.0436
CL7	0.00000460	0.21870978	1.73	0.0436
CL8	0.00000180	1.9725317	15.72	0.0001

STEP 8 CL22 REPLACED BY CL11 P-SQUARE = 0.38983934 C(P) = 11.80877035

DE	DF	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
REGRESSION	8	13.33156257	1.66644532	13.34	0.0001
ERROR	167	20.86601668	0.12494622		
TOTAL	175	34.19758125			

R VALUE	STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	1.81900267	2.49269738	19.95	0.0001
CL1	0.00750361	2.08600371	16.63	0.0001
CL2	0.00067113	1.02591328	8.18	0.0048
CL3	0.00041264	1.06834571	8.50	0.0048
CL4	0.00080868	1.06834571	8.50	0.0048
CL5	0.00033228	1.9725317	15.72	0.0001
CL6	0.00000460	0.21870978	1.73	0.0436
CL7	0.00000460	0.21870978	1.73	0.0436
CL8	0.00000180	1.9725317	15.72	0.0001

DE	DF	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
REGRESSION	8	13.33156257	1.66644532	13.34	0.0001
ERROR	167	20.86601668	0.12494622		
TOTAL	175	34.19758125			

R VALUE	STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	1.81900267	2.49269738	19.95	0.0001
CL1	0.00750361	2.08600371	16.63	0.0001
CL2	0.00067113	1.02591328	8.18	0.0048
CL3	0.00041264	1.06834571	8.50	0.0048
CL4	0.00080868	1.06834571	8.50	0.0048
CL5	0.00033228	1.9725317	15.72	0.0001
CL6	0.00000460	0.21870978	1.73	0.0436
CL7	0.00000460	0.21870978	1.73	0.0436
CL8	0.00000180	1.9725317	15.72	0.0001



STEP 8 C12 REPLACED BY C11 R SQUARE = 0.39104521 C(P) = 11.47317404

R		SUM OF SQUARES		MEAN SQUARE		F		PROB>F	
DF									
REGRESSION	167	13.37280348		13.41		0.0001			
ERROR	175	20.8247877		0.12469929					
TOTAL		34.19759125							

R VALUE		STD ERROR		TYPE II SS		F		PROB>F	
DF									
INTERCEPT	1.77213544			2.53393529		20.32		0.0001	
C11	0.01945573			0.0066168		1.58		0.2110	
DEF2	-0.00083085			0.00041612		13.19		0.0004	
DEF3	-0.00151122			0.00083085		9.62		0.0023	
DEF4	-0.00027538			0.0000186		15.39		0.0001	
C11	0.00010932			0.00001350		4.65		0.0325	
C103	0.00002263			0.00000619		17.82		0.0001	
C104	0.00002411			0.00000619		17.82		0.0001	
C105	-0.00000835			0.00000147		11.86		0.0001	

STEP 9 C204 REPLACED BY C104 R SQUARE = 0.39252305 C(P) = 11.06189000

R		SUM OF SQUARES		MEAN SQUARE		F		PROB>F	
DF									
REGRESSION	167	13.42333886		13.49		0.0001			
ERROR	175	20.7742235		0.12439686					
TOTAL		34.19756235							

R VALUE		STD ERROR		TYPE II SS		F		PROB>F	
DF									
INTERCEPT	1.76511842			2.76030871		22.19		0.0001	
C11	0.01952632			0.00671525		12.62		0.0075	
DEF2	-0.00105286			0.00039741		12.80		0.0005	
DEF3	-0.00142188			0.0007769		9.16		0.0029	
DEF4	-0.00023512			0.00002911		17.51		0.0001	
C11	0.00012181			0.00001092		6.75		0.0102	
C103	0.00002838			0.00000572		18.59		0.0001	
C104	0.00002801			0.00000572		18.59		0.0001	
C105	-0.00000647			0.00000104		11.86		0.0001	

THE ABOVE MODEL IS THE BEST N VARIABLE MODEL FOUND.

STEP 9 VARIABLE DEF23 ENTERED R SQUARE = 0.39594468 C(P) = 12.10964496

R		SUM OF SQUARES		MEAN SQUARE		F		PROB>F	
DF									
REGRESSION	166	13.54035027		12.09		0.0001			
ERROR	175	20.6572309		0.12444115					
TOTAL		34.19758125							

R VALUE		STD ERROR		TYPE II SS		F		PROB>F	
DF									
INTERCEPT	1.76586028			2.47255883		19.87		0.0001	
C11	0.01978888			0.00680556		12.15		0.0006	
DEF2	-0.00117423			0.00039882		12.03		0.0018	
DEF3	-0.00130021			0.0007581		15.16		0.0001	
DEF4	-0.00025277			0.00002575		5.56		0.0195	
C103	0.00001158			0.00000114					
C104	0.00002261			0.00000590					
DEF23	-0.00000431			0.00000106		14.69		0.0002	
C105	0.00000041			0.00000042		0.94		0.3336	

B



STEP 9 DET2 REPLACED BY C101 C(P) = 11.03234789

DE		R VALUE	STD ERROR	TYPE II SS	F	PROB>F
REGRESSION		13.57442435	13.57442435	1.50826938	12.14	0.0001
ERROR		20.62315686	20.62315686	0.12423588		
TOTAL		34.19758125	34.19758125			
INTERCEPT		1.64104972	0.00518711	2.53705631	20.42	0.0001
C11		0.02324052	0.00043253	1.46774572	19.86	0.0001
DET3		-0.00192770	0.00009205	1.44981123	11.67	0.0008
DET4		0.00020153	0.00004627	1.83085332	12.74	0.0002
C101		0.00000000	0.00000000	0.00000000	3.26	0.0730
C102		0.00000000	0.00000000	0.00000000	0.75	0.3863
C103		0.00000000	0.00000000	0.00000000	2.40	0.0001
C104		-0.00000000	0.00000000	0.00000000	17.12	0.0001
DET2		0.00000000	0.00000000	0.18137417	1.46	0.2287

STEP 9 C101 REPLACED BY DET24 C(P) = 11.08014927

DE		R VALUE	STD ERROR	TYPE II SS	F	PROB>F
REGRESSION		13.66931178	13.66931178	1.51881252	12.28	0.0001
ERROR		20.52826947	20.52826947	0.12366427		
TOTAL		34.19758125	34.19758125			
INTERCEPT		1.62910152	0.00517303	2.50260231	20.24	0.0001
C11		0.02324052	0.00043144	1.46774572	19.86	0.0001
DET3		-0.00192770	0.00009178	1.44981123	11.39	0.0003
DET4		0.00020153	0.00004627	1.83085332	12.74	0.0002
C101		0.00000000	0.00000000	0.00000000	3.26	0.0995
C102		0.00000000	0.00000000	0.00000000	0.75	0.0010
C103		0.00000000	0.00000000	0.00000000	2.40	0.0014
C104		-0.00000000	0.00000000	0.00000000	17.12	0.0001
DET2		0.00000000	0.00000000	0.18862496	1.53	0.2186

STEP 9 C101 REPLACED BY DET11 C(P) = 11.05670894

DE		R VALUE	STD ERROR	TYPE II SS	F	PROB>F
REGRESSION		13.66973453	13.66973453	1.51885939	12.28	0.0001
ERROR		20.52785672	20.52785672	0.12366173		
TOTAL		34.19758125	34.19758125			
INTERCEPT		1.62910152	0.00516520	2.50260231	20.25	0.0001
C11		0.02324052	0.00043111	1.46774572	20.15	0.0001
DET3		-0.00192770	0.00009172	1.44981123	11.39	0.0003
DET4		0.00020153	0.00004627	1.83085332	12.74	0.0002
C101		0.00000000	0.00000000	0.00000000	3.26	0.0993
C102		0.00000000	0.00000000	0.00000000	0.75	0.0010
C103		0.00000000	0.00000000	0.00000000	2.40	0.0014
C104		-0.00000000	0.00000000	0.00000000	17.12	0.0001
DET2		0.00000000	0.00000000	0.18862496	1.53	0.2186

THE ABOVE MODEL IS THE BEST 9 VARIABLE MODEL FOUND.

F



STATISTICAL ANALYSIS SYSTEM  
MAXIMUM IMPROVEMENT FOR DEPENDENT VARIABLE TAN

# IMPROVEMENT FIRE DEPENDENT VARIABLE TAN

$\text{SUMAF} = 0.40588605$   $\text{CIP} = 11.34294341$

STEP 10 VARIABLE SETTING ENTERED

REGRESSION		SUM OF SQUARES	MEAN SQUARE	F	PROB>F
10	13.88032129		1.3803212	11.27	0.0001
165	20.31726005		0.12312491		
175	34.15758125				
TOTAL					

INTERCEPT		STD ERROR	TYPE II SS	F	PROB>F
1	1.65782408	0.00527820	2.10057586	17.06	0.0001
2	0.02180021	0.00046223	1.69362934	13.75	0.0003
3	-0.00171424	0.00009045	1.27681340	10.37	0.0015
4	0.00026126	0.00004301	1.05527573	8.57	0.0039
5	-0.00012591	0.00003000	0.8322185	6.91	0.0134
6	0.00006003	0.00000793	0.66622338	5.41	0.0333
7	0.00003264	0.00000136	0.51373070	4.23	0.0447
8	-0.00003389	0.00000005	0.41058667	3.41	0.1928
9	0.00000007	0.00000000	0.21058667	1.71	0.2552
10	-0.00000289	0.00000014	0.45931733	3.73	0.0552
11	-0.00000045	0.00000030	0.26583041	2.16	0.1433
TOTAL					

STEP 10 DEVI REPLACED BY DEVI		SUM OF SQUARES	MEAN SQUARE	F	PROB>F
10	14.02516580		1.40251658	11.47	0.0001
165	20.31726152		0.12225706		
175	34.15758125				
TOTAL					

INTERCEPT		STD ERROR	TYPE II SS	F	PROB>F
1	1.61254824	0.00517807	2.30570109	18.86	0.0001
2	0.02248688	0.00002680	0.37506645	3.07	0.0817
3	0.00004695	0.00004452	1.88982765	15.46	0.0001
4	-0.00174775	0.00008770	1.54759982	12.66	0.0005
5	0.00031203	0.00004214	1.19441824	9.77	0.0021
6	-0.00011171	0.00000775	1.16949472	9.57	0.0023
7	0.00000240	0.00000133	1.13141404	9.25	0.0027
8	-0.00000405	0.00000008	0.35825247	2.93	0.0888
9	0.00000013	0.00000000	0.51587909	4.22	0.0415
10	-0.00000378	0.00000015	0.30847598	2.52	0.1141
11	-0.00000048	0.00000030			
TOTAL					

STEP 10 CI04 REPLACED BY C04		SUM OF SQUARES	MEAN SQUARE	F	PROB>F
10	14.03045250		1.40304525	11.48	0.0001
165	20.31712875		0.12222502		
175	34.15758125				
TOTAL					

INTERCEPT		STD ERROR	TYPE II SS	F	PROB>F
1	1.65056832	0.00486901	2.09846654	17.18	0.0001
2	0.02018432				
TOTAL					

6-30

THE ABOVE MODEL IS THE BEST TO VARIABLE MODEL FOUND.



MAXIMUM R-SQUARE IMPROVEMENT FOR DEPENDENT VARIABLE TAN

STEP 11 VARIABLE C111 ENTERED

C(P) = 11.33136571

SUM OF SQUARES		MEAN SQUARE		PROB>F	
DF				F	
REGRESSION	11	14.12749040	1.28431733	10.49	0.0001
ERROR	163	20.07009665	0.12337863		
TOTAL	175	34.19758705			
R VALUE		STD ERROR		PROB>F	
DF				F	
INTERCEPT	1	1.59075113	2.19342028	17.92	0.0001
C11	0.02044247	0.00494698	0.2531856	12.07	0.0001
C12	0.0011782	0.00004186	1.98405024	16.82	0.0001
C13	-0.0018186	0.00045161	1.5321005	12.56	0.0001
C14	0.0001966	0.0001144	1.12727935	9.21	0.0024
C15	-0.0011458	0.0000317	1.24254049	10.15	0.0017
C16	0.0002427	0.00000762	1.23174687	10.07	0.0019
C17	-0.0000756	0.0000023	0.09104810	0.79	0.3753
C18	-0.0000020	0.0000002	0.48232055	3.94	0.0488
C19	-0.0000016	0.0000000	0.68262164	5.58	0.0194
C20	-0.0000035	0.0000015	0.44541635	3.64	0.0582
C21	-0.0000057	0.0000030			

THE ABOVE MODEL IS THE BEST 11 VARIABLE MODEL FOUND.

STEP 12 VARIABLE C114 ENTERED

C(P) = 12.65478581

SUM OF SQUARES		MEAN SQUARE		PROB>F	
DF				F	
REGRESSION	12	16.21064155	1.35088679	9.66	0.0001
ERROR	163	19.98694566	0.12261927		
TOTAL	175	36.19758721			
R VALUE		STD ERROR		PROB>F	
DF				F	
INTERCEPT	1	1.61872802	1.85760552	15.15	0.0001
C11	0.0185757	0.00511214	0.2682580	12.33	0.0001
C12	0.0012808	0.00004923	1.38931377	11.33	0.0010
C13	-0.0014587	0.00011446	0.96337144	7.22	0.0057
C14	0.0011802	0.00013532	0.88609235	7.22	0.0057
C15	-0.0011563	0.00000795	0.97314526	7.22	0.0057
C16	0.0002241	0.00000243	1.05627538	8.61	0.0038
C17	-0.0000715	0.00000033	0.17895842	1.46	0.2288
C18	-0.0000040	0.00000011	0.49126942	2.01	0.0670
C19	-0.0000022	0.0000000	0.09115009	0.68	0.5111
C20	-0.0000037	0.00000152	0.73896878	6.03	0.0151
C21	-0.0000059	0.0000030	0.46553230	3.60	0.0531

STEP 12 C111 REPLACED BY C122

C(P) = 12.12675734

SUM OF SQUARES		MEAN SQUARE		PROB>F	
DF				F	
REGRESSION	12	16.27552457	1.35629371	9.73	0.0001
ERROR	163	19.92205668	0.12222121		
TOTAL	175	36.19758125			

SUM OF SQUARES		MEAN SQUARE		PROB>F	
DF				F	
REGRESSION	12	16.27552457	1.35629371	9.73	0.0001
ERROR	163	19.92205668	0.12222121		
TOTAL	175	36.19758125			

SUM OF SQUARES		MEAN SQUARE		PROB>F	
DF				F	
REGRESSION	12	16.27552457	1.35629371	9.73	0.0001
ERROR	163	19.92205668	0.12222121		
TOTAL	175	36.19758125			

0.51

F



STEP 12 C204 REPLACED BY C104 STATISTICAL ANALYSIS SYSTEM  
 MAXIMUM R-SQUARE IMPROVEMENT FOR DEPENDENT VARIABLE TAN  
 R SQUARE = 0.41943567 C(P) = 11.57206050

SUM OF SQUARES		MEAN SQUARE		F		PROB>F	
REGRESSION	12	14.34368545	1.19530712	9.81	0.0001		
ERROR	163	19.83389580	0.12180304				
TOTAL	175	34.17758125					
R VALUE							
STD ERROR							
TYPE II SS							
PROB>F							
INTERCEPT	1	1.33252251	2.40524852	19.75	0.0001		
CL1	0.00013916	0.00008307	0.34185337	2.81	0.0950		
CL11	-0.00013416	0.00004283	0.19491425	1.64	0.0021		
CL12	0.00022450	0.00009646	0.65940429	5.42	0.0212		
CL13	-0.00027914	0.00009095	1.14745506	9.42	0.0025		
CL14	0.00001419	0.00000647	0.58551283	4.81	0.0298		
CL15	-0.00000232	0.00000102	0.63754417	5.23	0.0234		
CL16	-0.00000057	0.00000033	0.36387385	2.99	0.0858		
CL17	-0.00000027	0.00000011	0.79478889	6.53	0.0116		
CL18	0.00000009	0.00000005	0.30050900	2.47	0.1182		
CL19	0.00000047	0.00000148	1.25625695	10.31	0.0016		
CL20	-0.00000078	0.00000030	0.85816152	7.05	0.0087		

THE ABOVE MODEL IS THE BEST 12 VARIABLE MODEL FOUND.

STEP 13 VARIABLE CL11 ENTERED R SQUARE = 0.42124705 C(P) = 13.06795160

SUM OF SQUARES		MEAN SQUARE		F		PROB>F	
REGRESSION	13	14.40563010	1.10812539	9.07	0.0001		
ERROR	162	19.70795112	0.12217254				
TOTAL	175	34.11358122					
R VALUE							
STD ERROR							
TYPE II SS							
PROB>F							
INTERCEPT	1	1.58422471	1.40649555	15.61	0.0001		
CL1	0.00013960	0.00008320	0.34092888	2.78	0.0977		
CL11	-0.00013460	0.00011621	1.09596713	8.97	0.0032		
CL12	0.00022750	0.00011621	1.09596713	8.97	0.0032		
CL13	-0.00000540	0.00000760	0.06194465	0.51	0.4775		
CL14	0.00001846	0.00015543	0.18151594	1.49	0.2247		
CL15	-0.00000159	0.00000895	0.52649873	4.31	0.0395		
CL16	-0.00000031	0.00000155	0.49506123	4.05	0.0458		
CL17	-0.00000057	0.00000114	0.28605103	2.34	0.1279		
CL18	-0.00000025	0.00000011	0.60566103	4.96	0.0274		
CL19	0.00000006	0.00000005	0.17845579	1.46	0.2386		
CL20	0.00000025	0.00000165	0.81033223	6.63	0.0109		
CL21	-0.00000068	0.00000033	0.51725907	4.23	0.0412		



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STATISTICAL ANALYSIS SYSTEM  
MAXIMUM R-SQUARE IMPROVEMENT FOR DEPENDENT VARIABLE TAN  
STEP 13 CL22 REPLACED BY C102 P SQUARE = 0.42195417 C(P) = 12.87115684

SUM OF SQUARES		MEAN SQUARE		F		PROB>F	
DF							
REGRESSION	13	14.42981215	1.0998555	9.10	0.0001		
ERROR	162	19.73774610	0.1220327				
TOTAL	175	34.16755825					
STO ERROR		TYPE II SS		F		PROB>F	
DF							
INTERCEPT	1	1.57301431	2.03870012	16.71	0.0001		
C11	1	0.02252245	0.00000000	13.60	0.0001		
C12	1	0.00117711	0.00000000	11.11	0.0001		
C13	1	0.00160036	0.00000000	11.11	0.0001		
C14	1	0.00117711	0.00000000	11.11	0.0001		
C15	1	0.00117711	0.00000000	11.11	0.0001		
C16	1	0.00117711	0.00000000	11.11	0.0001		
C17	1	0.00117711	0.00000000	11.11	0.0001		
C18	1	0.00117711	0.00000000	11.11	0.0001		
C19	1	0.00117711	0.00000000	11.11	0.0001		
C20	1	0.00117711	0.00000000	11.11	0.0001		
C21	1	0.00117711	0.00000000	11.11	0.0001		
C22	1	0.00117711	0.00000000	11.11	0.0001		
C23	1	0.00117711	0.00000000	11.11	0.0001		
C24	1	0.00117711	0.00000000	11.11	0.0001		
C25	1	0.00117711	0.00000000	11.11	0.0001		
C26	1	0.00117711	0.00000000	11.11	0.0001		
C27	1	0.00117711	0.00000000	11.11	0.0001		
C28	1	0.00117711	0.00000000	11.11	0.0001		
C29	1	0.00117711	0.00000000	11.11	0.0001		
C30	1	0.00117711	0.00000000	11.11	0.0001		
C31	1	0.00117711	0.00000000	11.11	0.0001		
C32	1	0.00117711	0.00000000	11.11	0.0001		
C33	1	0.00117711	0.00000000	11.11	0.0001		
C34	1	0.00117711	0.00000000	11.11	0.0001		
C35	1	0.00117711	0.00000000	11.11	0.0001		
C36	1	0.00117711	0.00000000	11.11	0.0001		
C37	1	0.00117711	0.00000000	11.11	0.0001		
C38	1	0.00117711	0.00000000	11.11	0.0001		
C39	1	0.00117711	0.00000000	11.11	0.0001		
C40	1	0.00117711	0.00000000	11.11	0.0001		
C41	1	0.00117711	0.00000000	11.11	0.0001		
C42	1	0.00117711	0.00000000	11.11	0.0001		
C43	1	0.00117711	0.00000000	11.11	0.0001		
C44	1	0.00117711	0.00000000	11.11	0.0001		
C45	1	0.00117711	0.00000000	11.11	0.0001		
C46	1	0.00117711	0.00000000	11.11	0.0001		
C47	1	0.00117711	0.00000000	11.11	0.0001		
C48	1	0.00117711	0.00000000	11.11	0.0001		
C49	1	0.00117711	0.00000000	11.11	0.0001		
C50	1	0.00117711	0.00000000	11.11	0.0001		
C51	1	0.00117711	0.00000000	11.11	0.0001		
C52	1	0.00117711	0.00000000	11.11	0.0001		
C53	1	0.00117711	0.00000000	11.11	0.0001		
C54	1	0.00117711	0.00000000	11.11	0.0001		
C55	1	0.00117711	0.00000000	11.11	0.0001		
C56	1	0.00117711	0.00000000	11.11	0.0001		
C57	1	0.00117711	0.00000000	11.11	0.0001		
C58	1	0.00117711	0.00000000	11.11	0.0001		
C59	1	0.00117711	0.00000000	11.11	0.0001		
C60	1	0.00117711	0.00000000	11.11	0.0001		
C61	1	0.00117711	0.00000000	11.11	0.0001		
C62	1	0.00117711	0.00000000	11.11	0.0001		
C63	1	0.00117711	0.00000000	11.11	0.0001		
C64	1	0.00117711	0.00000000	11.11	0.0001		
C65	1	0.00117711	0.00000000	11.11	0.0001		
C66	1	0.00117711	0.00000000	11.11	0.0001		
C67	1	0.00117711	0.00000000	11.11	0.0001		
C68	1	0.00117711	0.00000000	11.11	0.0001		
C69	1	0.00117711	0.00000000	11.11	0.0001		
C70	1	0.00117711	0.00000000	11.11	0.0001		
C71	1	0.00117711	0.00000000	11.11	0.0001		
C72	1	0.00117711	0.00000000	11.11	0.0001		
C73	1	0.00117711	0.00000000	11.11	0.0001		
C74	1	0.00117711	0.00000000	11.11	0.0001		
C75	1	0.00117711	0.00000000	11.11	0.0001		
C76	1	0.00117711	0.00000000	11.11	0.0001		
C77	1	0.00117711	0.00000000	11.11	0.0001		
C78	1	0.00117711	0.00000000	11.11	0.0001		
C79	1	0.00117711	0.00000000	11.11	0.0001		
C80	1	0.00117711	0.00000000	11.11	0.0001		
C81	1	0.00117711	0.00000000	11.11	0.0001		
C82	1	0.00117711	0.00000000	11.11	0.0001		
C83	1	0.00117711	0.00000000	11.11	0.0001		
C84	1	0.00117711	0.00000000	11.11	0.0001		
C85	1	0.00117711	0.00000000	11.11	0.0001		
C86	1	0.00117711	0.00000000	11.11	0.0001		
C87	1	0.00117711	0.00000000	11.11	0.0001		
C88	1	0.00117711	0.00000000	11.11	0.0001		
C89	1	0.00117711	0.00000000	11.11	0.0001		
C90	1	0.00117711	0.00000000	11.11	0.0001		
C91	1	0.00117711	0.00000000	11.11	0.0001		
C92	1	0.00117711	0.00000000	11.11	0.0001		
C93	1	0.00117711	0.00000000	11.11	0.0001		
C94	1	0.00117711	0.00000000	11.11	0.0001		
C95	1	0.00117711	0.00000000	11.11	0.0001		
C96	1	0.00117711	0.00000000	11.11	0.0001		
C97	1	0.00117711	0.00000000	11.11	0.0001		
C98	1	0.00117711	0.00000000	11.11	0.0001		
C99	1	0.00117711	0.00000000	11.11	0.0001		
C100	1	0.00117711	0.00000000	11.11	0.0001		

THE ABOVE MODEL IS THE BEST 13 VARIABLE MODEL FOUND.

STEP 14 VARIABLE C223 ENTERED

P SQUARE = 0.42629771 C(P) = 13.66234349

SUM OF SQUARES		MEAN SQUARE		F		PROB>F	
DF							
REGRESSION	14	14.57835554	1.04131075	8.55	0.0001		
ERROR	161	19.61923071	0.12185958				
TOTAL	175	34.19758625					
STD ERROR		TYPE II SS		F		PROB>F	
DF							
INTERCEPT	1	558.8990	1.69502254	13.91	0.0003		
C11	1	0.0204213	0.00009227	4.58	0.0339		
C12	1	0.0011438	0.00000000	8.96	0.0032		
C13	1	0.0011431	0.00000000	8.96	0.0032		
C14	1	0.00004823	0.00000000	1.23	0.2713		
C15	1	0.00000057	0.00000000	0.00	0.9999		
C16	1	0.00000000	0.00000000	0.00	0.9999		
C17	1	0.0001043	0.00000000	1.67	0.1990		
C18	1	0.00000000	0.00000000	0.00	0.9999		
C19	1	0.00000000	0.00000000	0.00	0.9999		
C20	1	0.00000000	0.00000000	0.00	0.9999		
C21	1	0.00000000	0.00000000	0.00	0.9999		
C22	1	0.00000000	0.00000000	0.00	0.9999		
C23	1	0.00000000	0.00000000	0.00	0.9999		
C24	1	0.00000000	0.00000000	0.00	0.9999		
C25	1	0.00000000	0.00000000	0.00	0.9999		
C26	1	0.00000000	0.00000000	0.00	0.9999		
C27	1	0.00000000	0.00000000	0.00	0.9999		
C28	1	0.00000000	0.00000000	0.00	0.9999		
C29	1	0.00000000	0.00000000	0.00	0.9999		
C30	1	0.00000000	0.00000000	0.00	0.9999		
C31	1	0.00000000	0.00000000	0.00	0.9999		
C32	1	0.00000000	0.00000000	0.00	0.9999		
C33	1	0.00000000	0.00000000	0.00	0.9999		
C34	1	0.00000000	0.00000000	0.00	0.9999		
C35	1	0.00000000	0.00000000	0.00	0.9999		
C36	1	0.00000000	0.00000000	0.00	0.9999		
C37	1	0.00000000	0.00000000	0.00	0.9999		
C38	1	0.00000000	0.00000000	0.00	0.9999		
C39	1	0.00000000	0.00000000	0.00	0.9999		
C40	1	0.00000000	0.00000000	0.00	0.9999		
C41	1	0.00000000	0.00000000	0.00	0.9999		
C42	1	0.00000000	0.00000000	0.00	0.9999		
C43	1	0.00000000	0.00000000	0.00	0.9999		
C44	1	0.00000000	0.00000000	0.00	0.9999		
C45	1	0.00000000	0.00000000	0.00	0.9999		
C46	1	0.00000000	0.00000000	0.00	0.9999		
C47	1	0.00000000	0.00000000	0.00	0.9999		
C48	1	0.00000000	0.00000000	0.00	0.9999		
C49	1	0.00000000	0.00000000	0.00	0.9999		
C50	1	0.00000000	0.00000000	0.00	0.9999		
C51	1	0.00000000	0.00000000	0.00	0.9999		
C52	1	0.00000000	0.00000000	0.00	0.9999		
C53	1	0.00000000	0.00000000	0.00	0.9999		
C54	1	0.00000000	0.00000000	0.00	0.9999		
C55	1	0.00000000	0.00000000	0.00	0.9999		
C56	1	0.00000000	0.00000000	0.00	0.9999		
C57	1	0.00000000	0.00000000	0.00	0.9999		
C58	1	0.00000000	0.00000000	0.00	0.9999		
C59	1	0.00000000	0.00000000	0.00	0.9999		
C60	1	0.00000000	0.00000000	0.00	0.9999		
C61	1	0.00000000	0.00000000	0.00	0.9999		
C62	1	0.00000000	0.00000000	0.00	0.9999		
C63	1	0.00000000	0.00000000	0.00	0.9999		
C64	1	0.00000000	0.00000000	0.00	0.9999		
C65	1	0.00000000	0.00000000	0.00	0.9999		
C66	1	0.00000000	0.00000000	0.00	0.9999		
C67	1	0.00000000	0.00000000	0.00	0.9999		
C68	1	0.00000000	0.00000000	0.00	0.9999		
C69	1	0.00000000	0.00000000	0.00	0.9999		
C70	1	0.00000000	0.00000000	0.00	0.9999		
C71	1	0.00000000	0.00000000	0.00	0.9999		
C72	1	0.00000000	0.00000000	0.00	0.9999		
C73	1	0.00000000	0.00000000	0.00	0.9999		
C74	1	0.00000000	0.00000000	0.00	0.9999		
C75	1	0.00000000	0.00000000	0.00	0.9999		
C76	1	0.00000000	0.00000000	0.00	0.9999		
C77	1	0.00000000	0.00000000	0.00	0.9999		
C78	1	0.00000000	0.00000000	0.00	0.9999		
C79	1	0.00000000	0.00000000	0.00	0.9999		
C80	1	0.00000000	0.00000000	0.00	0.9999		
C81	1	0.00000000	0.00000000	0.00	0.9999		
C82	1	0.00000000	0.00000000	0.00	0.9999		
C83	1	0.00000000	0.00000000	0.00	0.9999		
C84	1	0.00000000	0.00000000	0.00	0.9999		
C85	1	0.00000000	0.00000000	0.00	0.9999		
C86	1	0.00000000	0.00000000	0.00	0.9999		
C87	1	0.00000000	0.00000000	0.00	0.9999		
C88	1	0.00000000	0.00000000	0.00	0.9999		
C89	1	0.00000000	0.00000000	0.00	0.9999		
C90	1	0.00000000	0.00000000	0.00	0.9999		
C91	1	0.00000000	0.00000000	0.00	0.9999		
C92	1	0.00000000	0.00000000	0.00	0.9999		
C93	1	0.00000000	0.00000000	0.00	0.9999		
C94	1	0.00000000	0.00000000	0.00	0.9999		
C95	1	0.00000000	0.00000000	0.00	0.9999		
C96	1	0.00000000	0.00000000	0.00	0.9999		
C97	1	0.00000000	0.00000000	0.00	0.9999		
C98	1	0.00000000	0.00000000	0.00	0.9999		
C99	1	0.00000000	0.00000000	0.00	0.9999		
C100	1	0.00000000	0.00000000	0.00	0.9999		
C101	1	0.00000000	0.00000000	0.00	0.9999		
C102	1	0.00000000	0.00000000	0.00	0.9999		
C103	1	0.00000000	0.00000000	0.00	0.9999		
C104	1	0.00000000	0.00000000	0.00	0.9999		
C105	1	0.00000000	0.00000000	0.00	0.9999		
C106	1	0.00000000	0.00000000	0.00	0.9999		
C107	1	0.00000000	0.00000000	0.00	0.9999		
C108	1	0.00000000	0.00000000	0.00	0.9999		
C109	1	0.00000000	0.00000000	0.00	0.9999		
C110	1	0.00000000	0.00000000	0.00	0.9999		
C111	1	0.00000000	0.00000000	0.00	0.9999		
C112	1	0.00000000	0.00000000	0.00	0.9999		
C113	1	0.00000000	0.00000000	0.00	0.9999		
C114	1	0.00000000	0.00000000	0.00	0.9999		
C115	1	0.00000000	0.00000000	0.00	0.9999		
C116	1	0.00000000	0.00000000	0.00	0.9999		
C117	1	0.00000000	0.00000000	0.00	0.9999		
C118	1	0.00000000	0.00000000	0.00	0.9999		
C119	1	0.00000000	0.00000000	0.00	0.9999		
C120	1	0.00000000	0.00000000	0.00	0.9999		
C121	1	0.00000000	0.00000000	0.00	0.9999		
C122	1	0.00000000	0.00000000	0.00	0.9999		
C123	1	0.00000000	0.00000000	0.00	0.9999		
C124	1	0.00000000	0.00000000	0.00	0.9999		
C125	1	0.00000000	0.00000000	0.00	0.9999		
C126	1	0.00000000	0.00000000	0.00	0.9999		
C127	1	0.00000000	0.00000000	0.00	0.9999		
C128	1	0.00000000	0.00000000	0.00	0.9999		
C129	1	0.00000000	0.00000000	0.00	0.9999		
C130	1	0.00000000	0.00000000	0.00	0.9999		
C131	1	0.00000000	0.00000000	0.00	0.9999		
C132	1	0.00000000	0.00000000	0.00	0.9999		
C133	1	0.00000000	0.00000000	0.00	0.9999		
C134	1	0.00000000	0.00000000	0.00	0.9999		
C135	1	0.00000000	0.00000000	0.00	0.9999		
C136	1	0.00000000	0.00000000	0.00	0.9999		
C137	1	0.00000000	0.00000000	0.00	0.9999		
C138	1	0.00000000	0.00000000	0.00	0.9999		
C139	1	0.00000000	0.00000000	0.00	0.9999		
C140	1	0.00000000	0.00000000	0.00	0.9999		
C141	1	0.00000000	0.00000000	0.00	0.9999		
C142	1	0.00000000	0.00000000	0.00	0.9999		
C143	1	0.00000000	0.00000000	0.00	0.9999		
C144	1	0.00000000	0.00000000	0.00	0.9999		
C145	1	0.00000000	0.00000000	0.00	0.9999		
C146	1	0.00000000	0.00000000	0.00	0.9999		
C147	1	0.00000000	0.00000000	0.00	0.9999		
C148	1	0.00000000	0.00000000	0.00	0.9999		
C149	1	0.00000000	0.00000000	0.00	0.9999		
C150	1	0.00000000	0.00000000	0.00	0.9999		
C151	1	0.00000000	0.00000000	0.00	0.9999		
C152	1	0.00000000	0.00000000	0.00	0.9999		
C153	1	0.00000000	0.00000000	0.00	0.9999		
C154	1	0.00000000	0.00000000	0.00	0.9999		
C155	1	0.00000000	0.00000000	0.00	0.9999		
C156	1	0.00000000	0.00000000	0.00	0.9999		
C157	1	0.00000000	0.00000000	0.00	0.9999		
C158	1	0.00000000	0.00000000	0.00	0.9999		
C159	1	0.00000000	0.00000000	0.00	0.9999		
C160	1	0.00000000	0.00000000	0.00	0.9999		
C161	1	0.00000000	0.00000000	0.00	0.9999		
C162	1	0.00000000	0.00000000	0.00	0.9999		
C163	1	0.00000000	0.00000000	0.00	0.9999		
C164	1	0.00000000	0.00000000	0.00	0.9999		
C165	1	0.00000000	0.00000000	0.00	0.9999		
C166	1	0.00000000	0.00000000	0.00	0.9999		
C167	1	0.00000000	0.00000000	0.00	0.9999		
C168	1	0.00000000	0.00000000	0.00	0.9999		
C169	1	0.00000					



## STATISTICAL ANALYSIS SYSTEM

MAXIMUM F-SQUARE IMPROVEMENT FOR DEPENDENT VARIABLE TAN

STEP 14 CL11 REPLACED BY CL22

F SQUARE = 0.42889111 C(P) = 12.94059417

OF		SUM OF SQUARES	MEAN SQUARE	F	PROB>F
REGRESSION	14	14.66703874	1.04764562	8.64	0.0001
SSE	161	19.53054251	0.12130773		
TOTAL	175	34.19758125			
R VALUE					
		STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT					
CL1	1	0.00438556	2.12115687	17.49	0.0001
CL2	0	0.00000000	0.00000000	4.75	0.0307
CL3	-0	0.00000000	0.00000000	8.18	0.0048
CL4	-0	0.00000000	0.00000000	5.89	0.0163
CL5	-0	0.00000000	0.00000000	6.09	0.0146
CL6	-0	0.00000000	0.00000000	2.61	0.1079
CL7	-0	0.00000000	0.00000000	2.61	0.1079
CL8	-0	0.00000000	0.00000000	0.59	0.4347
CL9	-0	0.00000000	0.00000000	6.59	0.0112
CL10	-0	0.00000000	0.00000000	4.07	0.0434
CL11	-0	0.00000000	0.00000000	9.17	0.0029
CL12	-0	0.00000000	0.00000000	3.73	0.0573
CL13	-0	0.00000000	0.00000000	2.90	0.0906
CL14	-0	0.00000000	0.00000000	6.52	0.0040

STEP 14 CL103 REPLACED BY CL134

F SQUARE = 0.43023808 C(P) = 12.56573215

REGRESSION:		DF	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
REGRESS	14		14.71310161	1.05083583	8.68	0.0001
ERROR	161		19.48457564	0.12102161		
TOTAL	175		34.19767725			
R VALUE						
		R VALUE	STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT						
CL1	1	0.56197597	0.00440760	2.18058310	18.02	0.0001
CL11	1	0.00000000	0.00000000	0.00000000	5.76	0.0175
CL12	1	0.00000000	0.00000000	0.00000000	9.90	0.0020
CL13	1	0.00000000	0.00000000	0.00000000	5.75	0.0176
CL14	1	0.00000000	0.00000000	0.00000000	5.74	0.0178
CL15	1	0.00000000	0.00000000	0.00000000	3.91	0.0497
CL16	1	0.00000000	0.00000000	0.00000000	3.91	0.0497
CL17	1	0.00000000	0.00000000	0.00000000	6.11	0.0045
CL18	1	0.00000000	0.00000000	0.00000000	13.23	0.0004
CL19	1	0.00000000	0.00000000	0.00000000	1.62	0.0589
CL20	1	0.00000000	0.00000000	0.00000000	1.73	0.0853
CL21	1	0.00000000	0.00000000	0.00000000	3.75	0.0544
CL22	1	0.00000000	0.00000000	0.00000000	0.87	0.3517

THE ABOVE MODEL IS THE BEST 14 VARIABLE MODEL FOUND.



STEP 15 VARIABLE C004 ENTERED  
 STATISTICAL ANALYSIS SYSTEM  
 MAXIMUM R-SQUARE IMPROVEMENT FOR DEPENDENT VARIABLE TAN  
 F SQUARE = 0.43128175 C(P) = 14.27527540

SUM OF SQUARES		MEAN SQUARE		F		PROB>F	
DE	R VALUE	STD ERROR	TYPE II SS	F		PROB>F	
REGRESSION	15	14.74879275	0.98325285	8.09	0.0001		
ERROR	175	19.44878946	0.12155493				
TOTAL		34.15758125					
R VALUE							
INTERCEPT	1.54333916						
C11	0.02006460	0.00510485	1.88015288	15.47	0.0001		
C12	0.00221392	0.00090017	0.68419263	5.63	0.0189		
C13	-0.00115432	0.00036689	1.20323636	9.90	0.0020		
C14	0.00247888	0.00011538	0.50728588	4.17	0.0427		
C15	-0.00024642	0.00011338	0.57416119	4.72	0.0312		
C16	0.00000186	0.00000093	0.50731706	4.13	0.0434		
C17	0.00000000	0.00000000	0.29306422	2.39	0.1238		
C18	-0.00000000	0.00000000	0.12227116	1.01	0.3175		
C19	0.00000000	0.00000000	0.03569118	0.29	0.5887		
C20	-0.00000000	0.00000000	0.08129408	0.66	0.4883		
C21	-0.00000000	0.00000000	1.63151254	13.45	0.0003		
C22	0.00000000	0.00000000	0.47182244	3.88	0.0503		
C23	-0.00000000	0.00000000	0.14222477	1.18	0.2793		
C24	-0.00000000	0.00000000	0.28289984	2.33	0.1291		
C25	-0.00000000	0.00000000	0.13852821	1.14	0.2873		

THE ABOVE MODEL IS THE BEST 15 VARIABLE MODEL FOUND.

STEP 16 VARIABLE C005 ENTERED  
 R SQUARE = 0.43275378 C(P) = 15.85560802

SUM OF SQUARES		MEAN SQUARE		F		PROB>F	
DE	R VALUE	STD ERROR	TYPE II SS	F		PROB>F	
REGRESSION	16	14.79913252	0.92494578	7.58	0.0001		
ERROR	175	19.39844873	0.12200282				
TOTAL		34.19758125					
R VALUE							
INTERCEPT	1.54032896						
C11	0.01956841	0.00511544	1.85614204	15.21	0.0001		
C12	0.00221392	0.00090017	0.68419263	5.63	0.0189		
C13	-0.00115432	0.00036689	1.20323636	9.90	0.0023		
C14	0.00247888	0.00011538	0.50728588	4.17	0.0423		
C15	-0.00024642	0.00011338	0.57416119	4.72	0.0345		
C16	0.00000186	0.00000093	0.50731706	4.83	0.0293		
C17	0.00000000	0.00000000	0.29306422	4.06	0.0456		
C18	-0.00000000	0.00000000	0.07606784	0.62	0.5309		
C19	0.00000000	0.00000000	0.15552233	1.27	0.2606		
C20	-0.00000000	0.00000000	0.05333973	0.41	0.5216		
C21	-0.00000000	0.00012988	0.08598615	0.70	0.5024		
C22	0.00000000	0.00000000	0.49439342	4.05	0.0458		
C23	-0.00000000	0.00000000	1.67381104	13.72	0.0003		
C24	0.00000000	0.00000000	0.51208002	4.20	0.0421		
C25	-0.00000000	0.00000000	0.15411172	1.23	0.2683		
C26	-0.00000000	0.00000000	0.28251374	2.32	0.1301		
C27	-0.00000000	0.00000000	0.13411182	1.10	0.2960		

THE ABOVE MODEL IS THE BEST 16 VARIABLE MODEL FOUND.



STEP 17 VARIABLE (11) INTERCEPT  
 STATISTICAL ANALYSIS SYSTEM  
 MAXIMUM P-SQUARE IMPROVEMENT FOR DEPENDENT VARIABLE TAN  
 R SQUARE = 0.43306231 C(P) = 17.77974273

DE	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
REGRESSION	14.80968360	0.87115786	7.10	0.0001
ERROR	19.38789765	0.12270821		
TOTAL	34.19758125			

R VALUE	STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	0.00591524	1.59160044	12.60	0.0006
CL1	0.00097175	0.45232226	3.54	0.0211
DE1	0.00037442	1.17383984	9.38	0.0023
CL2	0.00012174	0.4842373	3.98	0.0478
CL11	0.0000316	0.01055109	0.09	0.7697
CL12	0.00021447	0.20337107	1.66	0.1998
CL22	0.00000197	0.48242220	3.93	0.0491
CL02	0.0001669	0.08502659	0.69	0.4064
CL03	0.00000869	0.00000748	1.35	0.2467
CL04	0.00014520	0.05777201	0.47	0.4936
CL05	0.00001176	0.09533085	0.78	0.3795
DE12	0.00000074	0.49639289	4.05	0.0460
DE13	0.00000028	1.67045072	13.61	0.0003
DE14	0.00000012	0.50844364	4.14	0.0433
DE15	0.00000168	0.10589467	0.86	0.3543
DE16	0.00000075	0.26012067	1.96	0.1638
DE17	0.00000026	0.14466888	1.18	0.2792

STEP 17 (12) DEPENDENT VARIABLE TAN  
 P SQUARE = 0.43306231 C(P) = 17.54634752

DE	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
REGRESSION	15.83836309	0.87284589	7.12	0.0001
ERROR	19.35921816	0.12252670		
TOTAL	34.19758125			

R VALUE	STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	0.01515086	0.79510626	6.49	0.0118
CL1	0.00222887	0.23205056	1.89	0.1707
DE1	0.0009230	0.58861966	4.80	0.0299
CL2	0.00037408	1.16629091	9.52	0.0024
CL11	0.00012444	0.39824263	3.25	0.0733
CL12	0.00002391	0.49828536	4.07	0.0454
CL22	0.00000399	0.48507103	3.97	0.0481
CL02	0.00000756	0.08173392	0.67	0.4153
CL03	0.00000156	0.20894795	1.71	0.1933
CL04	0.00013666	0.05551896	0.45	0.5018
CL05	0.0000013	0.13023876	1.06	0.3041
DE12	0.00000033	0.51767282	4.22	0.0415
DE13	0.00000013	1.74438916	14.12	0.0002
DE14	0.00000002	0.38727191	0.31	0.5766
DE15	0.00000021	0.39017364	0.89	0.3496
DE16	0.00000054	0.12458563	1.03	0.1777
DE17	0.00000024	0.15219348	1.24	0.2668

THE ABOVE MODEL IS THE BEST 17 VARIABLE MODEL FOUND.







STEP 19 C12 REPLACED BY DET44

R SQUARE = 0.43520901

C(P) = 21.18231258

REGRESSION		SUM OF SQUARES		MEAN SQUARE		F		PROB>F	
DE	R VALUE	STD ERROR	TYPE II SS						
INTERCEPT	1.51218430	0.00658165	0.00000000	1.45033897	11.72	0.0008			
DET1	0.00015616	0.00009418	0.00000000	0.53712514	4.34	0.0113			
DET2	-0.00135776	0.00054513	0.00000000	0.81401002	6.57	0.0050			
DET3	-0.00076934	0.00011322	0.00000000	0.50581629	4.09	0.0429			
DET4	-0.00012138	0.00005546	0.00000000	0.51589566	4.17	0.0429			
DET5	0.00000000	0.00000000	0.00000000	0.16882205	1.36	0.2447			
DET6	0.00000000	0.00000000	0.00000000	0.04419271	0.36	0.5511			
DET7	0.00000000	0.00000000	0.00000000	0.02028292	0.16	0.6862			
DET8	0.00000000	0.00000000	0.00000000	0.12265879	0.99	0.3210			
DET9	0.00000000	0.00000000	0.00000000	0.23038574	1.86	0.1745			
DET10	0.00000000	0.00000000	0.00000000	0.01003212	0.08	0.7763			
DET11	0.00000000	0.00000000	0.00000000	0.07376735	0.60	0.4414			
DET12	0.00000000	0.00000000	0.00000000	0.11608989	0.94	0.3344			
DET13	0.00000000	0.00000000	0.00000000	0.48689433	3.93	0.0491			
DET14	0.00000000	0.00000000	0.00000000	0.81100341	6.55	0.0114			
DET15	0.00000000	0.00000000	0.00000000	0.41688911	3.33	0.0623			
DET16	0.00000000	0.00000000	0.00000000	0.11382263	0.92	0.3361			
DET17	0.00000000	0.00000000	0.00000000	0.14922497	1.21	0.2736			
DET18	0.00000000	0.00000000	0.00000000	0.09922954	0.80	0.3712			

THE ABOVE MODEL IS THE BEST 19 VARIABLE MODEL FOUND.

STEP 20 VARIABLE DET11 ENTERED

R SQUARE = 0.43547078

C(P) = 23.10946073

REGRESSION		SUM OF SQUARES		MEAN SQUARE		F		PROB>F	
DE	R VALUE	STD ERROR	TYPE II SS						
INTERCEPT	1.51218430	0.00658165	0.00000000	1.45033897	11.72	0.0008			
DET1	0.00015616	0.00009418	0.00000000	0.53712514	4.34	0.0113			
DET2	-0.00135776	0.00054513	0.00000000	0.81401002	6.57	0.0050			
DET3	-0.00076934	0.00011322	0.00000000	0.50581629	4.09	0.0429			
DET4	-0.00012138	0.00005546	0.00000000	0.51589566	4.17	0.0429			
DET5	0.00000000	0.00000000	0.00000000	0.16882205	1.36	0.2447			
DET6	0.00000000	0.00000000	0.00000000	0.04419271	0.36	0.5511			
DET7	0.00000000	0.00000000	0.00000000	0.02028292	0.16	0.6862			
DET8	0.00000000	0.00000000	0.00000000	0.12265879	0.99	0.3210			
DET9	0.00000000	0.00000000	0.00000000	0.23038574	1.86	0.1745			
DET10	0.00000000	0.00000000	0.00000000	0.01003212	0.08	0.7763			
DET11	0.00000000	0.00000000	0.00000000	0.07376735	0.60	0.4414			
DET12	0.00000000	0.00000000	0.00000000	0.11608989	0.94	0.3344			
DET13	0.00000000	0.00000000	0.00000000	0.48689433	3.93	0.0491			
DET14	0.00000000	0.00000000	0.00000000	0.81100341	6.55	0.0114			
DET15	0.00000000	0.00000000	0.00000000	0.41688911	3.33	0.0623			
DET16	0.00000000	0.00000000	0.00000000	0.11382263	0.92	0.3361			
DET17	0.00000000	0.00000000	0.00000000	0.14922497	1.21	0.2736			
DET18	0.00000000	0.00000000	0.00000000	0.09922954	0.80	0.3712			

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REGRESSION		SUM OF SQUARES		MEAN SQUARE		F		PROB>F	
DE	R VALUE	STD ERROR	TYPE II SS						
INTERCEPT	1.45684176	0.00701755	0.00000000	1.35742695	10.90	0.0012			
DET1	0.00015616	0.00009418	0.00000000	0.53712514	4.34	0.0113			
DET2	-0.00135776	0.00054513	0.00000000	0.81401002	6.57	0.0050			
DET3	-0.00076934	0.00011322	0.00000000	0.50581629	4.09	0.0429			
DET4	-0.00012138	0.00005546	0.00000000	0.51589566	4.17	0.0429			
DET5	0.00000000	0.00000000	0.00000000	0.16882205	1.36	0.2447			
DET6	0.00000000	0.00000000	0.00000000	0.04419271	0.36	0.5511			
DET7	0.00000000	0.00000000	0.00000000	0.02028292	0.16	0.6862			
DET8	0.00000000	0.00000000	0.00000000	0.12265879	0.99	0.3210			
DET9	0.00000000	0.00000000	0.00000000	0.23038574	1.86	0.1745			
DET10	0.00000000	0.00000000	0.00000000	0.01003212	0.08	0.7763			
DET11	0.00000000	0.00000000	0.00000000	0.07376735	0.60	0.4414			
DET12	0.00000000	0.00000000	0.00000000	0.11608989	0.94	0.3344			
DET13	0.00000000	0.00000000	0.00000000	0.48689433	3.93	0.0491			
DET14	0.00000000	0.00000000	0.00000000	0.81100341	6.55	0.0114			
DET15	0.00000000	0.00000000	0.00000000	0.41688911	3.33	0.0623			
DET16	0.00000000	0.00000000	0.00000000	0.11382263	0.92	0.3361			
DET17	0.00000000	0.00000000	0.00000000	0.14922497	1.21	0.2736			
DET18	0.00000000	0.00000000	0.00000000	0.09922954	0.80	0.3712			

REGRESSION		SUM OF SQUARES		MEAN SQUARE		F		PROB>F	
DE	R VALUE	STD ERROR	TYPE II SS						
INTERCEPT	1.45684176	0.00701755	0.00000000	1.35742695	10.90	0.0012			
DET1	0.00015616	0.00009418	0.00000000	0.53712514	4.34	0.0113			
DET2	-0.00135776	0.00054513	0.00000000	0.81401002	6.57	0.0050			
DET3	-0.00076934	0.00011322	0.00000000	0.50581629	4.09	0.0429			
DET4	-0.00012138	0.00005546	0.00000000	0.51589566	4.17	0.0429			
DET5	0.00000000	0.00000000	0.00000000	0.16882205	1.36	0.2447			
DET6	0.00000000	0.00000000	0.00000000	0.04419271	0.36	0.5511			
DET7	0.00000000	0.00000000	0.00000000	0.02028292	0.16	0.6862			
DET8	0.00000000	0.00000000	0.00000000	0.12265879	0.99	0.3210			
DET9	0.00000000	0.00000000	0.00000000	0.23038574	1.86	0.1745			
DET10	0.00000000	0.00000000	0.00000000	0.01003212	0.08	0.7763			
DET11	0.00000000	0.00000000	0.00000000	0.07376735	0.60	0.4414			
DET12	0.00000000	0.00000000	0.00000000	0.11608989	0.94	0.3344			
DET13	0.00000000	0.00000000	0.00000000	0.48689433	3.93	0.0491			
DET14	0.00000000	0.00000000	0.00000000	0.81100341	6.55	0.0114			
DET15	0.00000000	0.00000000	0.00000000	0.41688911	3.33	0.0623			
DET16	0.00000000	0.00000000	0.00000000	0.11382263	0.92	0.3361			
DET17	0.00000000	0.00000000	0.00000000	0.14922497	1.21	0.2736			
DET18	0.00000000	0.00000000	0.00000000	0.09922954	0.80	0.3712			

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STEP 20 C202 REPI RECD BY C201 F SQAPE = 0.43905794 CIP) = 22.11114841

OF		SUM OF SQUARES	MEAN SQUARE	F	PROB>F
REGRESSION	20	15.01471566	0.75073508	6.07	0.0001
ERROR	155	19.18286159	0.12376040		
TOTAL	175	34.19757725			

R VALUE		STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	1.50273288	0.00708089	1.45298961	11.74	0.0008
C11	0.02426228	0.00015553	0.02512550	0.20	0.6529
C12	-0.00971181	0.00032456	0.82647654	6.68	0.0107
C13	-0.0141361	0.0001221	0.54783125	4.53	0.0370
C14	-0.0015534	0.00066951	0.6361653	5.14	0.0248
C15	-0.0000000	0.00000000	0.14163927	1.14	0.2864
C16	0.0000000	0.00000000	0.18638746	1.51	0.2216
C17	0.0000000	0.00000003	0.07571785	0.63	0.4253
C18	0.0000000	0.00000003	0.13328616	1.08	0.3010
C19	0.0000000	0.0001578	0.38557554	3.14	0.0788
C20	0.0000000	0.0000150	0.07221036	0.59	0.4381
C21	0.0000000	0.0000000	0.00000000	0.00	0.9999
C22	-0.0000000	0.0000000	0.00000000	0.00	0.9999
C23	-0.0000000	0.0000000	0.00000000	0.00	0.9999
C24	-0.0000000	0.0000000	0.00000000	0.00	0.9999
C25	-0.0000000	0.0000000	0.00000000	0.00	0.9999
C26	-0.0000000	0.0000000	0.00000000	0.00	0.9999
C27	-0.0000000	0.0000000	0.00000000	0.00	0.9999
C28	-0.0000000	0.0000000	0.00000000	0.00	0.9999
C29	-0.0000000	0.0000000	0.00000000	0.00	0.9999
C30	-0.0000000	0.0000000	0.00000000	0.00	0.9999
C31	-0.0000000	0.0000000	0.00000000	0.00	0.9999
C32	-0.0000000	0.0000000	0.00000000	0.00	0.9999
C33	-0.0000000	0.0000000	0.00000000	0.00	0.9999
C34	-0.0000000	0.0000000	0.00000000	0.00	0.9999

STEP 20 C204 REPI RECD BY C201 F SQAPE = 0.44713697 CIP) = 19.86274153

OF		SUM OF SQUARES	MEAN SQUARE	F	PROB>F
REGRESSION	20	15.29100279	0.76455014	6.27	0.0001
ERROR	155	18.9057846	0.12197763		
TOTAL	175	34.19678739			

R VALUE		STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	1.55624836	0.00702591	1.27100888	10.42	0.0015
C11	0.02262955	0.00015553	0.02512550	0.20	0.6529
C12	-0.00971181	0.00032456	0.82647654	6.68	0.0107
C13	-0.0141361	0.0001221	0.54783125	4.53	0.0370
C14	-0.0015534	0.00066951	0.6361653	5.14	0.0248
C15	-0.0000000	0.00000000	0.14163927	1.14	0.2864
C16	0.0000000	0.00000000	0.18638746	1.51	0.2216
C17	0.0000000	0.00000003	0.07571785	0.63	0.4253
C18	0.0000000	0.00000003	0.13328616	1.08	0.3010
C19	0.0000000	0.0001578	0.38557554	3.14	0.0788
C20	0.0000000	0.0000150	0.07221036	0.59	0.4381
C21	-0.0000000	0.0000000	0.00000000	0.00	0.9999
C22	-0.0000000	0.0000000	0.00000000	0.00	0.9999
C23	-0.0000000	0.0000000	0.00000000	0.00	0.9999
C24	-0.0000000	0.0000000	0.00000000	0.00	0.9999
C25	-0.0000000	0.0000000	0.00000000	0.00	0.9999
C26	-0.0000000	0.0000000	0.00000000	0.00	0.9999
C27	-0.0000000	0.0000000	0.00000000	0.00	0.9999
C28	-0.0000000	0.0000000	0.00000000	0.00	0.9999
C29	-0.0000000	0.0000000	0.00000000	0.00	0.9999
C30	-0.0000000	0.0000000	0.00000000	0.00	0.9999
C31	-0.0000000	0.0000000	0.00000000	0.00	0.9999
C32	-0.0000000	0.0000000	0.00000000	0.00	0.9999
C33	-0.0000000	0.0000000	0.00000000	0.00	0.9999
C34	-0.0000000	0.0000000	0.00000000	0.00	0.9999

C11	0.02262955	0.00015553	0.02512550	0.20	0.6529
C12	-0.00971181	0.00032456	0.82647654	6.68	0.0107
C13	-0.0141361	0.0001221	0.54783125	4.53	0.0370
C14	-0.0015534	0.00066951	0.6361653	5.14	0.0248
C15	-0.0000000	0.00000000	0.14163927	1.14	0.2864
C16	0.0000000	0.00000000	0.18638746	1.51	0.2216
C17	0.0000000	0.00000003	0.07571785	0.63	0.4253
C18	0.0000000	0.00000003	0.13328616	1.08	0.3010
C19	0.0000000	0.0001578	0.38557554	3.14	0.0788
C20	0.0000000	0.0000150	0.07221036	0.59	0.4381
C21	-0.0000000	0.0000000	0.00000000	0.00	0.9999
C22	-0.0000000	0.0000000	0.00000000	0.00	0.9999
C23	-0.0000000	0.0000000	0.00000000	0.00	0.9999
C24	-0.0000000	0.0000000	0.00000000	0.00	0.9999
C25	-0.0000000	0.0000000	0.00000000	0.00	0.9999
C26	-0.0000000	0.0000000	0.00000000	0.00	0.9999
C27	-0.0000000	0.0000000	0.00000000	0.00	0.9999
C28	-0.0000000	0.0000000	0.00000000	0.00	0.9999
C29	-0.0000000	0.0000000	0.00000000	0.00	0.9999
C30	-0.0000000	0.0000000	0.00000000	0.00	0.9999
C31	-0.0000000	0.0000000	0.00000000	0.00	0.9999
C32	-0.0000000	0.0000000	0.00000000	0.00	0.9999
C33	-0.0000000	0.0000000	0.00000000	0.00	0.9999
C34	-0.0000000	0.0000000	0.00000000	0.00	0.9999

F







STEP 20 CL1 REPIAC BY CL2 (CP) = 15.66431087

1 EQUATION = 0.46222394

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REGRESSION	DE	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
155	20	15.90604776	0.79034704	6.66	0.0001
175	175	18.39064649	0.10451459		
TOTAL		34.29669425			

R VALUE	STD ERROR	TYPE II SS	F	PROB>F
1.00000000	0.01227437	1.37693199	11.61	0.0008
0.04182062	0.00050896	0.00000000	0.00	0.0198
-0.00015829	0.00013213	0.00000000	0.00	0.3564
0.00012240	0.00014884	0.00000000	0.00	0.0148
-0.00035971	0.00004178	0.00000000	0.00	0.1051
0.00000000	0.00000000	0.00000000	0.00	0.0005
0.00000000	0.00000000	0.00000000	0.00	0.5339
0.00000000	0.00000000	0.00000000	0.00	0.1343
0.00000000	0.00000000	0.00000000	0.00	0.6685
0.00000000	0.00000000	0.00000000	0.00	0.0028
0.00000000	0.00000000	0.00000000	0.00	0.0759
0.00000000	0.00000000	0.00000000	0.00	0.0192
0.00000000	0.00000000	0.00000000	0.00	0.0048
0.00000000	0.00000000	0.00000000	0.00	0.0714
0.00000000	0.00000000	0.00000000	0.00	0.1944
0.00000000	0.00000000	0.00000000	0.00	0.0003
0.00000000	0.00000000	0.00000000	0.00	0.0041
0.00000000	0.00000000	0.00000000	0.00	0.5135
0.00000000	0.00000000	0.00000000	0.00	0.1494
0.00000000	0.00000000	0.00000000	0.00	0.4856

REGRESSION	DE	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
155	20	15.83722253	0.79186163	6.68	0.0001
175	175	18.36034472	0.10451459		
TOTAL		34.19756725			

R VALUE	STD ERROR	TYPE II SS	F	PROB>F
1.00000000	0.01147671	1.44203725	12.17	0.0006
0.04182062	0.00050896	0.00000000	0.00	0.0174
-0.00015829	0.00013213	0.00000000	0.00	0.2776
0.00012240	0.00014884	0.00000000	0.00	0.0121
-0.00035971	0.00004178	0.00000000	0.00	0.0885
0.00000000	0.00000000	0.00000000	0.00	0.0007
0.00000000	0.00000000	0.00000000	0.00	0.6215
0.00000000	0.00000000	0.00000000	0.00	0.3283
0.00000000	0.00000000	0.00000000	0.00	0.0022
0.00000000	0.00000000	0.00000000	0.00	0.3813
0.00000000	0.00000000	0.00000000	0.00	0.0292
0.00000000	0.00000000	0.00000000	0.00	0.0037
0.00000000	0.00000000	0.00000000	0.00	0.5081
0.00000000	0.00000000	0.00000000	0.00	0.3594
0.00000000	0.00000000	0.00000000	0.00	0.1945
0.00000000	0.00000000	0.00000000	0.00	0.0007
0.00000000	0.00000000	0.00000000	0.00	0.0042

REGRESSION	DE	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
155	20	15.83722253	0.79186163	6.68	0.0001
175	175	18.36034472	0.10451459		
TOTAL		34.19756725			

R VALUE	STD ERROR	TYPE II SS	F	PROB>F
1.00000000	0.01147671	1.44203725	12.17	0.0006
0.04182062	0.00050896	0.00000000	0.00	0.0174
-0.00015829	0.00013213	0.00000000	0.00	0.2776
0.00012240	0.00014884	0.00000000	0.00	0.0121
-0.00035971	0.00004178	0.00000000	0.00	0.0885
0.00000000	0.00000000	0.00000000	0.00	0.0007
0.00000000	0.00000000	0.00000000	0.00	0.6215
0.00000000	0.00000000	0.00000000	0.00	0.3283
0.00000000	0.00000000	0.00000000	0.00	0.0022
0.00000000	0.00000000	0.00000000	0.00	0.3813
0.00000000	0.00000000	0.00000000	0.00	0.0292
0.00000000	0.00000000	0.00000000	0.00	0.0037
0.00000000	0.00000000	0.00000000	0.00	0.5081
0.00000000	0.00000000	0.00000000	0.00	0.3594
0.00000000	0.00000000	0.00000000	0.00	0.1945
0.00000000	0.00000000	0.00000000	0.00	0.0007
0.00000000	0.00000000	0.00000000	0.00	0.0042



STATISTICAL ANALYSIS SYSTEM  
MAXIMUM P-SQUARE IMPROVEMENT FOR DEPENDENT VARIABLE TAN  
STEP 20 DET34 REPLACED BY C11 C(SIAFF) = 0.46336641 C(P) = 15.34605972

REGRESSION		SUM OF SQUARES		MEAN SQUARE		F		PROB>F	
DF	SS	DF	SS	DF	SS	DF	SS	DF	SS
20	15.84601045	15	0.79230052	6.69	0.0001				
155	18.3157080		0.11839723						
175	34.16158129								
R VALUE		STD ERROR		TYPE II SS		F		PROB>F	
INTERCEPT									
C11	1.67405033	0.05079249	0.01594420	0.13	0.7141				
C12	-0.01863969	0.00306009	0.07617826	0.58	0.4237				
C13	-0.00132781	0.00056223	0.66036563	1.22	0.0194				
DET1	0.00015293	0.00013840	0.14455850	2.41	0.1228				
C111	-0.00331928	0.00020575	0.28510447	0.83	0.3643				
C112	0.00045693	0.00022201	0.09801115	11.71	0.0008				
DET11	-0.00000000	0.00000000	1.38595173	0.32	0.5726				
DET22	0.00000155	0.00000274	0.03786116	2.49	0.1167				
DET33	0.00000093	0.00000059	0.29470885	8.86	0.0034				
C113	0.00010051	0.00003377	1.04896815	1.25	0.2649				
C114	0.00012364	0.00011544	0.14821145	5.72	0.0180				
C115	-0.00000078	0.00000200	0.67724774	8.03	0.0052				
C201	-0.00013007	0.00006035	0.95026690	1.08	0.3069				
C202	-0.00018681	0.00020642	0.09697815	1.92	0.1674				
C203	0.00002245	0.00002164	0.12737813	12.44	0.0005				
DET12	0.00000083	0.00000050	0.22780597	8.59	0.0039				
DET13	-0.00000087	0.00000024	1.49660656	0.50	0.4787				
DET14	0.00000028	0.00000013	0.01670361	3.29	0.0715				
DET23	0.00000151	0.00000190	0.01073957						
DET24	-0.00000087	0.00000048	0.39003340						

THE ABOVE MODEL IS THE BEST 20 VARIABLE MODEL FOUND.



STEP 1 VARIABLE C12 ENTERED									
		R SQUARE = 0.6182733		C(P) = 59.01572361					
OF	DF	SUM OF SQUARES	MEAN SQUARE	F	PROB>F				
REGRESSION	173	0.48926840	0.48926840	279.67	0.0001				
ERROR	174	0.30264531	0.00174942						
TOTAL	174	0.79191771							
THE ABOVE MODEL IS THE BEST 1 VARIABLE MODEL FOUND.									
STEP 2 VARIABLE C104 ENTERED									
		R SQUARE = 0.84894512		C(P) = 42.28706514					
OF	DF	SUM OF SQUARES	MEAN SQUARE	F	PROB>F				
REGRESSION	173	0.51391113	0.29695557	158.98	0.0001				
ERROR	174	0.27800658	0.00161632						
TOTAL	174	0.79191771							
THE ABOVE MODEL IS THE BEST 2 VARIABLE MODEL FOUND.									
STEP 3 VARIABLE D13 ENTERED									
		R SQUARE = 0.66080635		C(P) = 37.14822385					
OF	DF	SUM OF SQUARES	MEAN SQUARE	F	PROB>F				
REGRESSION	173	0.52335426	0.17443475	111.05	0.0001				
ERROR	174	0.26861346	0.00157084						
TOTAL	174	0.79191771							
THE ABOVE MODEL IS THE BEST 3 VARIABLE MODEL FOUND.									
STEP 4 VARIABLE C104 ENTERED									
		R SQUARE = 0.67214558		C(P) = 32.32355478					
OF	DF	SUM OF SQUARES	MEAN SQUARE	F	PROB>F				
REGRESSION	173	0.53228400	0.13307100	87.13	0.0001				
ERROR	174	0.25963372	0.00152726						
TOTAL	174	0.79191771							

STEP 5 VARIABLE C104 ENTERED									
		R SQUARE = 0.67214558		C(P) = 32.32355478					
DE	DF	SUM OF SQUARES	MEAN SQUARE	F	PROB>F				
REGRESSION	173	0.53228400	0.13307100	87.13	0.0001				
ERROR	174	0.25963372	0.00152726						
TOTAL	174	0.79191771							

STEP 6 VARIABLE C104 ENTERED									
		R SQUARE = 0.67214558		C(P) = 32.32355478					
DE	DF	SUM OF SQUARES	MEAN SQUARE	F	PROB>F				
REGRESSION	173	0.53228400	0.13307100	87.13	0.0001				
ERROR	174	0.25963372	0.00152726						
TOTAL	174	0.79191771							



MAXIMUM F-SQUARE IMPROVEMENT FOR DEPENDENT VARIABLE TS

## STEP 4 CL2 REPLACED BY CL1

C(P) = 32.17300377

REGRESSION		SUM OF SQUARES		MEAN SQUARE		F		PROB>F	
DF		SS		MS		SS		MS	
170	REGRESS	0.53248209		0.13312052		87.23		0.0001	
174	TOTAL	0.25943563		0.00152609					
R VALUE									
INTERCEPT		STD ERROR		TYPE II SS		F		PROB>F	
1	CL1	0.00012501		0.28180552		184.66		0.0001	
1	CL2	0.00001326		0.01213975		12.34		0.0005	
1	CL3	0.00000034		0.01522664		10.17		0.0017	
1	CL4	0.00000023		0.01969154		12.90		0.0004	

THE ABOVE MODEL IS THE BEST 4 VARIABLE MODEL FOUND.

## STEP 5 VARIABLE NET44 ENTERED

C(P) = 28.85354153

REGRESSION		SUM OF SQUARES		MEAN SQUARE		F		PROB>F	
DF		SS		MS		SS		MS	
169	REGRESS	0.53948131		0.10789626		72.23		0.0001	
174	TOTAL	0.25243640		0.00149371					
R VALUE									
INTERCEPT		STD ERROR		TYPE II SS		F	PROB>F		
1	CL1	0.00013148		0.00013148		0.26229559	176.94	0.0001	
1	CL2	0.00001436		0.00001436		0.0255708	17.24	0.0001	
1	CL3	0.00000099		0.00000099		0.00689922	4.89	0.0318	
1	CL4	0.00000033		0.00000033		0.01472033	9.85	0.0020	
1	CL5	0.00000061		0.00000061		0.01866440	12.63	0.0005	

THE ABOVE MODEL IS THE BEST 5 VARIABLE MODEL FOUND.

## STEP 6 VARIABLE NET22 ENTERED

C(P) = 25.66240172

		DF	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
REGRESSION		6	0.54631169	0.09105195	62.28	0.0001
ERROR		168	0.24560602	0.00146194		
TOTAL		174	0.79191771			
		R VALUE	STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT		-0.00076625				
CL1		-0.00185248	0.00013453	0.26972583	184.50	0.0001
CL2		-0.00006968	0.00001496	0.03172848	21.70	0.0001
CL3		0.00000024	0.00000011	0.0083038	4.87	0.0321
CL4		-0.00000030	0.00000039	0.01323708	9.18	0.0028
CL5		-0.00000114	0.00000033	0.01706444	11.77	0.0008
CL6		-0.00000235	0.00000026	0.02154850	14.74	0.0002

STEP 6 NET44 REPLACED BY NET22

C(P) = 22.32390367

REGRESSION		SUM OF SQUARES		MEAN SQUARE		F		PROB>F	
DF		SS		MS		SS		MS	
168	REGRESS	0.55070441		0.09178407		63.93		0.0001	
174	TOTAL	0.24121331		0.00143579					
R VALUE									
INTERCEPT		STD ERROR		TYPE II SS		F	PROB>F		
1	CL1	-0.01111493	0.00013295	0.28058666		195.42		0.0001	
1	CL2	-0.00145906	0.00001390	0.01222164		22.32		0.0001	
1	CL3	-0.00000048	0.00000013	0.01522614		10.70		0.0014	
1	CL4	-0.00000139	0.00000033	0.01861704		13.66		0.0013	
1	CL5	-0.00000237	0.00000021	0.0181981		12.41		0.0003	
1	CL6	-0.00000004	0.00000004	0.0181981		12.41		0.0005	



MAXIMUM IMPROVEMENT FOR DEPENDENT VARIABLE IS

C(P) = 21.41291294

STEP 6 CL2 REPLACED BY CL3

F SQUARE = 0.66691972

PROB&gt;F

F

MEAN SQUARE

SUM OF SQUARES

STD ERROR

TYPE II SS

F

PROB&gt;F

INTERCEPT

CL2

CL3

DEF1

DEF2

DEF3

DEF4

DEF5

DEF6

DEF7

DEF8

DEF9

DEF10

DEF11

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SYSTEM ANALYSIS FOR DEPENDENT VARIABLE TS  
 REGRESSION F-SQUARE IMPROVEMENT FOR DEPENDENT VARIABLE TS  
 F-SQUARE = 0.76729634 C(P) = 19.16790409

[illegible]

**G-48**



MAXIMUM F-SQUARE IMPROVEMENT FOR DEPENDENT VARIABLE IS

STEP 9 DEPT4 REPLACED BY C203

F SQUARE = 0.71219623

C(P) =

18.21853971

SUM OF SQUARES		MEAN SQUARE		F	PROB>F
REGRESSION	9	0.56400681	0.06266676	45.37	0.0001
ERROR	165	0.22791490	0.00138131		
TOTAL	174	0.79191771			
R VALUE		STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	-0.01750404	0.00016390	0.19716726	142.74	0.0001
C11	0.00201760	0.00309505	0.00303729	2.20	0.1400
C12	-0.00313367	0.00005108	0.00176771	5.49	0.0206
C13	-0.00001225	0.00000012	0.00000696	0.17	0.6779
C14	0.00000106	0.00000026	0.02433244	17.62	0.0001
C104	-0.00000116	0.00000035	0.01527833	11.06	0.0011
C203	-0.00000135	0.00000055	0.00800513	5.80	0.0172
C204	-0.00000267	0.00000067	0.02186224	15.90	0.0001
CFT34	-0.00000007	0.00000002	0.02059222	21.42	0.0001

STEP 9 DEPT4 REPLACED BY C103

F SQUARE = 0.71484635

C(P) =

16.62352684

SUM OF SQUARES		MEAN SQUARE		F	PROB>F
REGRESSION	9	0.56609549	0.06289994	45.96	0.0001
ERROR	165	0.22581622	0.00136860		
TOTAL	174	0.79191771			
R VALUE		STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	-0.01324846	0.00014701	0.21650729	158.20	0.0001
C11	0.00144898	0.00005195	0.01025112	7.39	0.0069
C12	-0.00015859	0.00000507	0.00371077	2.71	0.1015
C13	0.00000104	0.00000025	0.02291893	16.75	0.0001
C104	0.00000813	0.00000040	0.00513588	3.75	0.0544
C106	-0.00000276	0.00000075	0.01452906	11.35	0.0009
C203	-0.00001560	0.00000147	0.00596873	4.36	0.0383
C204	-0.00000533	0.00000145	0.01851552	13.53	0.0003
CFT34	-0.00000006	0.00000001	0.02311866	16.89	0.0001

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STEP 9 DEPT4 REPLACED BY C12

F SQUARE = 0.72535201

C(P) =

10.30055672

SUM OF SQUARES		MEAN SQUARE		F	PROB>F
REGRESSION	9	0.57441511	0.06382435	48.42	0.0001
ERROR	165	0.21749661	0.00131917		
TOTAL	174	0.79191771			
R VALUE		STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	-0.010952858	0.00142739	0.00401298	3.04	0.0829
C11	-0.01245352	0.00252334	0.01203035	9.13	0.0029
C12	0.00772305	0.00004560	0.01478567	11.62	0.0010
C13	-0.00001100	0.00000025	0.02127955	16.14	0.0001
C104	0.00002010	0.00000031	0.01885925	14.31	0.0002
C106	-0.00000306	0.00000036	0.02789889	21.16	0.0001

C203	-0.00002628	0.000000940	0.01987544	15.08	0.0001
C204	0.00000747	0.000000156	0.0307137	22.81	0.0001
CFT34	-0.00000005	0.00000001	0.01698187	12.88	0.0004

THE ABOVE MODEL IS THE BEST 9 VARIABLE MODEL FOUND.



STEP 10 VARIABLE DET24 ENTERED F SQUARE = 0.72638558 C(P) = 11.67824941  
 MAXIMUM F-SQUARE IMPROVEMENT FOR DEPENDENT VARIABLE IS

REGRESSION	OF	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
10	174	0.57523792	0.05752379	43.54	0.0001
104	174	0.21667975	0.00132122		
174	174	0.79191771			
R VALUE					
INTERCEPT	OF	STD ERROR	TYPE II SS	F	PROB>F
10	174	0.00142528	0.00394621	2.99	0.0850
104	174	0.00252810	0.01177441	8.91	0.0033
174	174	0.00006021	0.000705965	5.35	0.0220
10	174	0.00000000	0.01882459	14.25	0.0002
104	174	0.00000000	0.0001882	0.62	0.4323
174	174	0.00000000	0.0113969	12.97	0.0004
10	174	0.00000000	0.02330887	17.64	0.0001
104	174	0.00000000	0.0178036	13.50	0.0003
174	174	0.00000163	0.02505901	18.97	0.0001
10	174	0.00000005	0.00372206	2.82	0.0952

THE ABOVE MODEL IS THE BEST 10 VARIABLE MODEL FOUND.

STEP 11	VARIABLE ENTERED	R SQUARE = 0.72838754	C(P) = 12.47358576		
	OF	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
REGRESSION	11	0.57682299	0.05243845	39.74	0.0001
ERROR	174	0.21509472	0.00131960		
TOTAL	174	0.79191771			
	R VALUE	STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	-0.01507076				
C1	-0.00367932	0.00180488	0.00548378	4.16	0.0431
C2	-0.00930124	0.00299087	0.01276228	9.67	0.0022
NP1	-0.00006425	0.00006425	0.00851538	6.25	0.0120
NP12	-0.00000030	0.00000030	0.02005433	15.20	0.0001
NP13	-0.00000005	0.00000004	0.00158507	1.44	0.2325
NP14	-0.00000000	0.00000000	0.00185229	1.44	0.2325
C1N3	-0.00002190	0.00000081	0.01857505	16.02	0.0002
C1N4	-0.00000341	0.00000000	0.02371121	18.02	0.0001
C2N3	-0.00003295	0.00000000	0.01941121	14.71	0.0001
C2N4	-0.00000102	0.00000000	0.02488261	18.53	0.0001
NP17	-0.00000038	0.00000038	0.00288346	2.27	0.1339

THE ABOVE MODEL IS THE BEST 11 VARIABLE MODEL FOUND.

STEP 12	VARIABLE DET23 ENTERED	R SQUARE = 0.72965352	C(P) = 13.71163949
	OF	SUM OF SQUARES	MEAN SQUARE
	12	0.57782554	0.04815213
	162	0.21409217	0.00132156
	174	0.79191771	
	TOTAL		
	PROFESSOR		
	12	0.57782554	0.04815213
	162	0.21409217	0.00132156
	174	0.79191771	
	TOTAL		
	F	36.44	0.0001
	PROB>F		

THE ABOVE MODEL IS THE BEST 12 VARIABLE MODEL FOUND.

INTERCEPT				
INT	-0.01628066	0.00180595	0.00520095	0.0490
INT	-0.00255904	0.00299332	0.01244953	0.0023
INT	-0.00916430	0.00296392	0.00760370	0.0176
INT	-0.00015811	0.00000030	0.01966287	0.0003
INT	-0.00000017	0.00000000	0.00258103	0.1643
INT	-0.00000000	0.00000000	0.00289743	0.1065
INT	-0.00002092	0.00000590	0.01660249	0.0004
INT	-0.00000360	0.00000993	0.01994124	0.0004
INT	-0.00003658	0.00010255	0.01723272	0.0007
INT	-0.00006668	0.00030172	0.02093378	0.0001
INT	-0.00000022	0.00000022	0.00100255	0.3851
INT	-0.00000013	0.00000008	0.00374109	0.0944

THE ABOVE MODEL IS THE BEST 13 VARIABLE MODEL FOUND.

STEP 14 VARIABLE DET25 ENTERED	R SQUARE = 0.72638558	C(P) = 11.67824941			
OF	SUM OF SQUARES	MEAN SQUARE	F	PROB>F	
14	0.57523792	0.05752379	43.54	0.0001	
174	0.21667975	0.00132122			
174	0.79191771				
R VALUE					
INTERCEPT	OF	STD ERROR	TYPE II SS	PROB>F	
10	174	0.00142528	0.00394621	2.99	0.0850
104	174	0.00252810	0.01177441	8.91	0.0033
174	174	0.00006021	0.000705965	5.35	0.0220
10	174	0.00000000	0.01882459	14.25	0.0002
104	174	0.00000000	0.0001882	0.62	0.4323
174	174	0.00000000	0.0113969	12.97	0.0004
10	174	0.00000000	0.02330887	17.64	0.0001
104	174	0.00000000	0.0178036	13.50	0.0003
174	174	0.00000163	0.02505901	18.97	0.0001
10	174	0.00000005	0.00372206	2.82	0.0952

THE ABOVE MODEL IS THE BEST 14 VARIABLE MODEL FOUND.

STEP 15 VARIABLE DET26 ENTERED					R SQUARE = 0.72638558	C(P) = 11.67824941		
OF					SUM OF SQUARES	MEAN SQUARE	F	PROB>F
15					0.57523792	0.05752379	43.54	0.0001
174					0.21667975	0.00132122		
174					0.79191771			
R VALUE								
INTERCEPT		OF	STD ERROR	TYPE II SS	PROB>F			
10	174		0.00142528	0.00394621	2.99	0.0850		
104	174		0.00252810	0.01177441	8.91	0.0033		
174	174		0.00006021	0.000705965	5.35	0.0220		
10	174		0.00000000	0.01882459	14.25	0.0002		
104	174		0.00000000	0.0001882	0.62	0.4323		
174	174		0.00000000	0.0113969	12.97	0.0004		
10	174		0.00000000	0.02330887	17.64	0.0001		
104	174		0.00000000	0.0178036	13.50	0.0003		
174	174		0.00000163	0.02505901	18.97	0.0001		
10	174		0.00000005	0.00372206	2.82	0.0952		

THE ABOVE MODEL IS THE BEST 15 VARIABLE MODEL FOUND.



REGRESSION		SUM OF SQUARES		MEAN SQUARE		F		PROB>F	
13	161	0.57011727	0.04447056	0.00132795	33.49	0.0001			
174	174	0.21380645	0.00132795						
R VALUE		STD ERROR		TYPE II SS		F		PROB>F	
INTERCEPT	-0.00000000	0.00181400	0.00514419	0.00514419	3.87	0.0508			
CL1	-0.00367030	0.00306234	0.01271479	0.01271479	9.57	0.0023			
CL2	-0.00475592	0.00000000	0.00788216	0.00788216	5.94	0.0159			
DET1	-0.00000000	0.00000000	0.00000000	0.00000000	0.00	0.9999			
CL12	-0.00000000	0.00000000	0.00000000	0.00000000	0.00	0.9999			
CL13	-0.00000000	0.00000000	0.00000000	0.00000000	0.00	0.9999			
CL14	-0.00000000	0.00000000	0.00000000	0.00000000	0.00	0.9999			
CL15	-0.00000000	0.00000000	0.00000000	0.00000000	0.00	0.9999			
CL16	-0.00000000	0.00000000	0.00000000	0.00000000	0.00	0.9999			
CL17	-0.00000000	0.00000000	0.00000000	0.00000000	0.00	0.9999			
CL18	-0.00000000	0.00000000	0.00000000	0.00000000	0.00	0.9999			
CL19	-0.00000000	0.00000000	0.00000000	0.00000000	0.00	0.9999			
CL20	-0.00000000	0.00000000	0.00000000	0.00000000	0.00	0.9999			
CL21	-0.00000000	0.00000000	0.00000000	0.00000000	0.00	0.9999			
CL22	-0.00000000	0.00000000	0.00000000	0.00000000	0.00	0.9999			
CL23	-0.00000000	0.00000000	0.00000000	0.00000000	0.00	0.9999			
CL24	-0.00000000	0.00000000	0.00000000	0.00000000	0.00	0.9999			

REGRESSION		SUM OF SQUARES		MEAN SQUARE		F		PROB>F	
13	161	0.58297736	0.04447056	0.00129777	34.56	0.0001			
174	174	0.20940635	0.00129777						
R VALUE		STD ERROR		TYPE II SS		F		PROB>F	
INTERCEPT	-0.02356435	0.00517565	0.01026632	0.01026632	7.91	0.0055			
CL1	-0.01174446	0.00742120	0.01362809	0.01362809	10.50	0.0014			
CL2	-0.00015346	0.00006385	0.00000000	0.00000000	5.78	0.0174			
CL11	-0.00003569	0.00001667	0.00000000	0.00000000	4.58	0.0338			
CL12	-0.00011400	0.00004448	0.00015031	0.00015031	4.74	0.0309			
CL13	-0.00000000	0.00000000	0.00000000	0.00000000	11.86	0.0007			
CL14	-0.00000000	0.00000000	0.00000000	0.00000000	11.50	0.0007			
CL15	-0.00000000	0.00000000	0.00000000	0.00000000	11.52	0.0007			
CL16	-0.00000000	0.00000000	0.00000000	0.00000000	11.52	0.0007			
CL17	-0.00000000	0.00000000	0.00000000	0.00000000	11.52	0.0007			
CL18	-0.00000000	0.00000000	0.00000000	0.00000000	11.52	0.0007			
CL19	-0.00000000	0.00000000	0.00000000	0.00000000	11.52	0.0007			
CL20	-0.00000000	0.00000000	0.00000000	0.00000000	11.52	0.0007			
CL21	-0.00000000	0.00000000	0.00000000	0.00000000	11.52	0.0007			
CL22	-0.00000000	0.00000000	0.00000000	0.00000000	11.52	0.0007			
CL23	-0.00000000	0.00000000	0.00000000	0.00000000	11.52	0.0007			
CL24	-0.00000000	0.00000000	0.00000000	0.00000000	11.52	0.0007			

REGRESSION		SUM OF SQUARES		MEAN SQUARE		F		PROB>F	
13	161	0.58394527	0.04491917	0.00129173	34.77	0.0001			
174	174	0.20796944	0.00129173						
R VALUE		STD ERROR		TYPE II SS		F		PROB>F	
INTERCEPT	-0.02063681	0.00513604	0.01074131	0.01074131	8.32	0.0045			
CL1	-0.01162660	0.00740540	0.01387364	0.01387364	10.74	0.0013			
CL2	-0.00000000	0.00000000	0.00000000	0.00000000	5.78	0.0174			
CL11	-0.00003569	0.00001667	0.00000000	0.00000000	4.58	0.0338			
CL12	-0.00011400	0.00004448	0.00015031	0.00015031	4.74	0.0309			
CL13	-0.00000000	0.00000000	0.00000000	0.00000000	11.86	0.0007			
CL14	-0.00000000	0.00000000	0.00000000	0.00000000	11.50	0.0007			
CL15	-0.00000000	0.00000000	0.00000000	0.00000000	11.52	0.0007			
CL16	-0.00000000	0.00000000	0.00000000	0.00000000	11.52	0.0007			
CL17	-0.00000000	0.00000000	0.00000000	0.00000000	11.52	0.0007			
CL18	-0.00000000	0.00000000	0.00000000	0.00000000	11.52	0.0007			
CL19	-0.00000000	0.00000000	0.00000000	0.00000000	11.52	0.0007			
CL20	-0.00000000	0.00000000	0.00000000	0.00000000	11.52	0.0007			
CL21	-0.00000000	0.00000000	0.00000000	0.00000000	11.52	0.0007			
CL22	-0.00000000	0.00000000	0.00000000	0.00000000	11.52	0.0007			
CL23	-0.00000000	0.00000000	0.00000000	0.00000000	11.52	0.0007			
CL24	-0.00000000	0.00000000	0.00000000	0.00000000	11.52	0.0007			

REGRESSION		SUM OF SQUARES		MEAN SQUARE		F		PROB>F	
13	161	0.58394527	0.04491917	0.00129173	34.77	0.0001			
174	174	0.20796944	0.00129173						
R VALUE		STD ERROR		TYPE II SS		F		PROB>F	
INTERCEPT	-0.02063681	0.00513604	0.01074131	0.01074131	8.32	0.0045			
CL1	-0.01162660	0.00740540	0.01387364	0.01387364	10.74	0.0013			
CL2	-0.00000000	0.00000000	0.00000000	0.00000000	5.78	0.0174			
CL11	-0.00003569	0.00001667	0.00000000	0.00000000	4.58	0.0338			
CL12	-0.00011400	0.00004448	0.00015031	0.00015031	4.74	0.0309			
CL13	-0.00000000	0.00000000	0.00000000	0.00000000	11.86	0.0007			
CL14	-0.00000000	0.00000000	0.00000000	0.00000000	11.50	0.0007			
CL15	-0.00000000	0.00000000	0.00000000	0.00000000	11.52	0.0007			
CL16	-0.00000000	0.00000000	0.00000000	0.00000000	11.52	0.0007			
CL17	-0.00000000	0.00000000	0.00000000	0.00000000	11.52	0.0007			
CL18	-0.00000000	0.00000000	0.00000000	0.00000000	11.52	0.0007			
CL19	-0.00000000	0.00000000	0.00000000	0.00000000	11.52	0.0007			
CL20	-0.00000000	0.00000000	0.00000000	0.00000000	11.52	0.0007			
CL21	-0.00000000	0.00000000	0.00000000	0.00000000	11.52	0.0007			
CL22	-0.00000000	0.00000000	0.00000000	0.00000000	11.52	0.0007			
CL23	-0.00000000	0.00000000	0.00000000	0.00000000	11.52	0.0007			
CL24	-0.00000000	0.00000000	0.00000000	0.00000000	11.52	0.0007			



STEP 13 DELETED BY DET12 F SQUARE = 0.73931666 C(P) = 10.49761299  
 MAXIMUM P-SQUARE IMPROVEMENT FOR DEPENDENT VARIABLE IS

SUM OF SQUARES		MEAN SQUARE		F		PROB>F	
REGRESSION	12	0.58468604	0.04407585	34.94	0.0001		
TOTAL	174	0.20723168	0.00128715				
R VALUE		STD ERROR		TYPE II SS		F	
INTERCEPT		0.00429531		0.00842099		6.54	
C1		0.00723581		0.01090859		8.47	
C2		0.00000702		0.00118495		0.89	
C3		0.00305765		0.01218442		9.47	
C4		0.0001919		0.00505609		4.63	
C5		0.00005576		0.00523728		4.07	
C6		0.00000029		0.01843274		14.32	
C7		0.00000362		0.01563786		12.03	
C8		0.00000395		0.01426998		11.09	
C9		0.00000055		0.01643179		12.77	
C10		0.00000172		0.01643128		12.77	
C11		0.00000002		0.00111244		0.86	
C12		0.00000001		0.01779046		13.82	



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STATISTICAL ANALYSIS SYSTEM  
MAXIMUM F-SQUARE IMPROVEMENT FOR DEPENDENT VARIABLE TS

STEP 14 DET12 REPLACED BY DET11 F SQUARE = 0.73965744 C(P) = 11.69064630

DE	R VALUE	SUM OF SQUARES	STD ERROR	TYPE II SS	F	PROB>F
REGRESSION		0.58574783		0.04183913	32.47	0.0001
ERROR		0.2016589		0.00128856		
TOTAL		0.78740673				
INTERCEPT						
CL1	-0.00880010	0.0425516	0.00863526	0.00863526	6.70	0.0105
CL2	-0.01105774	0.00759158	0.00000007	0.01084486	8.42	0.0042
CL3	-0.02203392	0.00000007	0.00000007	0.00218851	1.70	0.1944
CL4	-0.00001052	0.00000000	0.00000000	0.01262540	9.80	0.0021
CL5	-0.00001052	0.00000000	0.00000000	0.00001900	4.70	0.0316
CL6	-0.00001122	0.00000000	0.00000000	0.00497995	3.86	0.0510
CL7	-0.00001122	0.00000000	0.00000000	0.00179441	1.39	0.2397
CL8	-0.00000000	0.00000000	0.00000000	0.01813102	14.07	0.0002
CL9	-0.00000000	0.00000000	0.00000000	0.01637739	12.71	0.0005
CL10	-0.00000000	0.00000000	0.00000000	0.01497500	11.62	0.0008
CL11	-0.00000000	0.00000000	0.00000000	0.01745595	13.55	0.0003
CL12	-0.00000000	0.00000000	0.00000000	0.01721870	13.36	0.0003
CL13	-0.00000000	0.00000000	0.00000000	0.0184240	14.43	0.0003
CL14	-0.00000000	0.00000000	0.00000000	0.01576278	12.23	0.0006

STEP 14 DET1 REPLACED BY C201 R SQUARE = 0.74043581 C(P) = 11.22217116

DE	R VALUE	SUM OF SQUARES	STD ERROR	TYPE II SS	F	PROB>F
REGRESSION		0.58636423		0.04188316	32.60	0.0001
ERROR		0.20255322		0.00128471		
TOTAL		0.78891745				
INTERCEPT						
CL1	-0.01251238	0.00416172	0.00416172	0.01203804	9.37	0.0026
CL2	-0.02203392	0.00734248	0.00734248	0.01495567	11.64	0.0008
CL3	-0.00001052	0.00000000	0.00000000	0.01285562	10.01	0.0019
CL4	-0.00001052	0.00000000	0.00000000	0.00927741	7.38	0.0073
CL5	-0.00001122	0.00000000	0.00000000	0.00765493	5.97	0.0157
CL6	-0.00001122	0.00000000	0.00000000	0.00275347	2.14	0.1452
CL7	-0.00000000	0.00000000	0.00000000	0.01699069	12.36	0.0004
CL8	-0.00000000	0.00000000	0.00000000	0.0158179	12.36	0.0004
CL9	-0.00000000	0.00000000	0.00000000	0.01328585	10.34	0.0016
CL10	-0.00000000	0.00000000	0.00000000	0.00280492	2.18	0.1415
CL11	-0.00000000	0.00000000	0.00000000	0.01693293	13.18	0.0004
CL12	-0.00000000	0.00000000	0.00000000	0.01524228	11.96	0.0007
CL13	-0.00000000	0.00000000	0.00000000	0.00248070	1.93	0.1666
CL14	-0.00000000	0.00000000	0.00000000	0.01570339	12.22	0.0006



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STEP 14. OPTLY REPLACED BY C10) S T A T I S T I C A L A N A L Y S I S S Y S T E M  
MAXIMUM R-SQUARE IMPROVEMENT FOR DEPENDENT VARIABLE IS  
R SQUARE = 0.74135784 C(P) = 10.66723641

DE		SUM OF SQUARES		MEAN SQUARE		F		PROB>F	
14		0.58709440		0.04193531		32.76		0.0001	
TOTAL		0.20482331		0.00128015					
174		0.79191771							
R VALUE		STD ERROR		TYPE II SS		F		PROB>F	
INTERCEPT		0.00501810		0.01464966		11.44		0.0009	
C11		0.00882865		0.01761446		13.78		0.0003	
C12		0.00005109		0.01151834		9.00		0.0031	
C13		0.00001957		0.01173148		9.17		0.0029	
C14		0.00005525		0.01379664		8.43		0.0042	
C15		0.00000026		0.01721270		13.45		0.0003	
C16		0.00000014		0.00344844		2.72		0.1010	
C17		0.00000553		0.00586505		7.69		0.0067	
C18		0.00000196		0.00582222		4.64		0.0367	
C19		0.00000378		0.00349211		2.73		0.1009	
C20		0.00000575		0.01061204		8.29		0.0045	
C21		0.00000191		0.00584977		7.39		0.0215	
C22		0.00000001		0.00210163		1.64		0.2019	
C23		0.00000001		0.01863910		14.56		0.0002	

THE ABOVE MODEL IS THE BEST 14 VARIABLE MODEL FOUND.

DE		SUM OF SQUARES		MEAN SQUARE		F		PROB>F	
15		0.58906928		0.03927129		30.78		0.0001	
TOTAL		0.20384844		0.00127578					
174		0.79191771							
R VALUE		STD ERROR		TYPE II SS		F		PROB>F	
INTERCEPT		0.00511246		0.01202578		9.43		0.0025	
C11		0.00005141		0.01420382		11.13		0.0011	
C12		0.00000010		0.01672887		11.52		0.0011	
C13		0.00005189		0.01291609		10.52		0.0019	
C14		0.00002254		0.00740604		6.59		0.0112	
C15		0.00006254		0.01710797		13.56		0.0019	
C16		0.00000378		0.00370424		2.90		0.0903	
C17		0.00000149		0.01137992		8.92		0.0033	
C18		0.00000108		0.00428337		5.35		0.0220	
C19		0.00000777		0.00357919		2.81		0.0959	
C20		0.00001202		0.01218022		6.55		0.0024	
C21		0.00000194		0.00810641		4.55		0.0127	
C22		0.00002001		0.03407309		3.19		0.0759	
C23		0.00000001		0.01576566		12.36		0.0006	

THE ABOVE MODEL IS THE BEST 15 VARIABLE MODEL FOUND.

B



15:32 MONDAY, APRIL 25, 1983 57

STEP 16 VARIABLE COEFFICIENTS ENTERED  
 MAXIMUM P-SQUARE IMPROVEMENT FOR DEPENDENT VARIABLE TS  
 R SQUARE = 0.74495061 CIP1 = 12.56506242

SUM OF SQUARES		MEAN SQUARE		F		PROB>F	
DF							
REGRESSION	16	0.59586645	0.03696627	28.83	0.0001		
TOTAL	172	0.20205133	0.00127884				
		0.74495061					
R VALUE		STD ERROR		TYPE II SS		F	
INTERCEPT	-2.00875565	0.00523752	0.01278794	0.01278794	10.01	0.0019	
CL1	-0.01658865	0.00244633	0.01407667	0.01407667	11.71	0.0008	
CL2	-0.03165893	0.00000918	0.00207777	0.00207777	1.62	0.2043	
CL3	-0.0001162	0.00000500	0.00013497	0.00013497	7.06	0.0053	
CL4	-0.0001101	0.00000281	0.00012185	0.00012185	7.13	0.0084	
CL5	-0.00015554	0.00000356	0.000170610	0.000170610	6.03	0.0152	
CL6	-0.00015673	0.00000227	0.000178252	0.000178252	13.94	0.0003	
CL7	-0.00000281	0.00000153	0.000033637	0.000033637	3.39	0.0674	
CL8	-0.00001745	0.00000571	0.000193103	0.000193103	9.33	0.0026	
CL9	-0.00002249	0.00000104	0.000061462	0.000061462	5.33	0.0223	
CL10	-0.00000518	0.00000186	0.000020138	0.000020138	3.29	0.0718	
CL11	-0.0000179	0.00000227	0.000079112	0.000079112	0.62	0.4327	
CL12	-0.00003178	0.00001005	0.000269045	0.000269045	9.92	0.0020	
CL13	-0.00004693	0.00000194	0.00023524	0.00023524	6.44	0.0121	
CL14	-0.00000302	0.00000001	0.000007155	0.000007155	3.34	0.0695	
CL15	-0.00000005	0.00000001	0.000000132	0.000000132	12.26	0.0006	

THE ABOVE MODEL IS THE BEST 16 VARIABLE MODEL FOUND.



16:21 WEDNESDAY, JUNE 13, 1984

SAS

MAXIMUM R-SQUARE IMPROVEMENT FOR DEPENDENT VARIABLE GC

WARNING: 111 OBSERVATIONS DELETED DUE TO MISSING VALUES.

STEP 1 VARIABLE D102 ENTERED

R SQUARE = 0.19641593 C(P) = 77.47256032

OF	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
REGRESSION	439.8236366	439.8236366	15.64	0.0002
ERROR	1799.42237346	28.1159776		
TOTAL	2239.24621212			

B VALUE	STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	4.53106186			
D102	0.00002763	0.00000699	15.64	0.0002

THE ABOVE MODEL IS THE BEST 1 VARIABLE MODEL FOUND.

STEP 2 VARIABLE D104 ENTERED

R SQUARE = 0.42617650 C(P) = 39.59459848

OF	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
REGRESSION	954.31411849	477.15705934	23.39	0.0001
ERROR	1284.93209344	20.39514751		
TOTAL	2239.24621212			

B VALUE	STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	5.43105115			
D102	0.00006026	0.00000881	46.79	0.0001
D104	-0.00000443	0.00000088	25.23	0.0001

THE ABOVE MODEL IS THE BEST 2 VARIABLE MODEL FOUND.

STEP 3 VARIABLE D101 ENTERED

R SQUARE = 0.53375064 C(P) = 22.92369354

OF	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
REGRESSION	1195.19909408	398.39969803	23.66	0.0001
ERROR	1044.04711804	16.83946965		
TOTAL	2239.24621212			

B VALUE	STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	4.65669701			
D102	0.000035473	0.000062259	14.30	0.0004
D104	0.00006657	0.00000618	64.30	0.0001
D101	-0.00000660	0.00000039	44.84	0.0001

THE ABOVE MODEL IS THE BEST 3 VARIABLE MODEL FOUND.



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SAS

MAXIMUM R-SQUARE IMPROVEMENT FOR DEPENDENT VARIABLE GC

STEP 4 VARIABLE F202 ENTERED

R SQUARE = 0.57368242 C(P) = 17.99301080

OF 4 SUM OF SQUARES MEAN SQUARE F PROB>F

REGRESSION 4 1284.61618484 321.15404621 20.52 0.0001

ERROR 61 654.63007228 15.64967258

TOTAL 65 2239.24621212

B VALUE STD ERROR TYPE II SS F PROB>F

INTERCEPT 5.06181681 0.00060882 188.07580296 12.02 0.0010

DET1 0.00000128 0.00000792 1168.81247858 44.66 0.0001

DET4 0.00000695 0.00000961 644.41680146 41.18 0.0001

D1D2 -0.00000639 0.000194969 89.41709076 5.71 0.0199

F202 -0.000466039 0.000194969 89.41709076 5.71 0.0199

THE ABOVE MODEL IS THE BEST 4 VARIABLE MODEL FOUND.

STEP 5 VARIABLE DET44 ENTERED

R SQUARE = 0.58864444 C(P) = 17.39615638

OF 5 SUM OF SQUARES MEAN SQUARE F PROB>F

REGRESSION 5 1318.11982501 263.62396500 17.17 0.0001

ERROR 60 921.12638711 15.35210645

TOTAL 65 2239.24621212

B VALUE STD ERROR TYPE II SS F PROB>F

INTERCEPT 4.25320275 0.00064699 221.39924415 14.42 0.0003

DET1 0.00000128 0.00000792 1168.81247858 44.66 0.0001

DET44 0.00000758 0.00000792 1202.13682059 78.30 0.0001

D1D2 0.00000695 0.00000109 629.91583404 41.03 0.0001

F202 -0.000651385 0.000230285 122.83185871 8.00 0.0063

STEP 5 F202 REPLACED BY D203

R SQUARE = 0.60102648 C(P) = 15.24709026

OF 5 SUM OF SQUARES MEAN SQUARE F PROB>F

REGRESSION 5 1345.84626872 269.16925374 18.08 0.0001

ERROR 60 893.39994340 14.88999906

TOTAL 65 2239.24621212

B VALUE STD ERROR TYPE II SS F PROB>F

INTERCEPT 4.35154287 0.00063880 234.14701939 15.73 0.0002

DET1 0.00000128 0.00000792 1168.81247858 44.66 0.0001

DET44 0.00000233 0.00000832 1253.19719763 84.16 0.0001

D1D2 0.00000742 0.00000106 685.27844178 46.02 0.0001

D203 -0.00009873 0.00003105 150.55830243 10.11 0.0023

B



SAS

MAXIMUM R-SQUARE IMPROVEMENT FOR DEPENDENT VARIABLE GC

R SQUARE = 0.61956486 C(P) = 12.02951134

STEP 5 OET44 REPLACED BY OET22

OF	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
REGRESSION	1397.35826314	277.47165263		
ERROR	851.98724869	14.19813248		
TOTAL	2239.24621212		19.54	0.0001

B VALUE	STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	4.5497055			
OET1	0.00182580	135.01830185	9.51	0.0031
OET22	0.00021530	116.66986928	8.32	0.0057
OED2	0.00005966	700.66071129	49.35	0.0001
D1D4	-0.00000485	314.01115599	22.12	0.0001
OED3	-0.00011917	192.03861509	13.53	0.0003

R SQUARE = 0.63017820 C(P) = 10.18742617

STEP 5 OET1 REPLACED BY C201

OF	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
REGRESSION	1411.12415400	282.2243080		
ERROR	828.12205812	13.80203430		
TOTAL	2239.24621212		20.45	0.0001

B VALUE	STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	4.82626421			
OET22	0.00027814	145.07671409	10.51	0.0019
C201	0.00017662	138.78436971	11.50	0.0012
OED2	0.00007900	124.76109524	12.57	0.0001
D1D4	-0.00000901	291.74589721	21.14	0.0001
OED3	-0.00013596	264.48230767	19.16	0.0001

G-57

THE ABOVE MODEL IS THE BEST 5 VARIABLE MODEL FOUND.

R SQUARE = 0.66085562 C(P) = 6.86295825

STEP 6 VARIABLE FD13 ENTERED

OF	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
REGRESSION	1479.81843873	246.63640646		
ERROR	759.42777339	12.87165718		
TOTAL	2239.24621212		19.16	0.0001

B VALUE	STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	3.93219412			
FD13	0.00537630	68.69428473	5.34	0.0244
OET22	0.00027814	138.78436971	15.52	0.0003
C201	0.00017662	124.76109524	12.57	0.0001
D1D4	-0.00007900	291.74589721	21.14	0.0001
OED2	-0.00000901	264.48230767	19.16	0.0001
OED3	-0.00013596	264.48230767	19.16	0.0001



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SAS

MAXIMUM R-SQUARE IMPROVEMENT FOR DEPENDENT VARIABLE GC

THE ABOVE MODEL IS THE BEST 6 VARIABLE MODEL FOUND.

STEP 7 VARIABLE DET4 ENTERED

R SQUARE = 0.67626799 C(P) = 6.18793888

DF	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
7	1514.33053370	216.33293339	17.31	0.0001
58	724.91567842	12.49854618		
65	2239.24621212			
8 VALUE				
	STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	0.00413882	42.21725580	3.38	0.0712
DE13	0.0007336	203.56674126	16.45	0.0002
DE122	0.0000095	34.51209137	2.76	0.1020
DE144	0.0005277	122.00280486	9.76	0.0028
D101	0.0001286	708.59077987	56.68	0.0001
D102	0.0000186	373.23821823	29.88	0.0001
D104	0.0000018	348.51021266	27.88	0.0001
D203	0.00004081			

STEP 7 C201 REPLACED BY DET4

R SQUARE = 0.70137733 C(P) = 1.82988308

DF	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
7	1570.55653237	224.36521891	19.46	0.0001
58	668.68967976	11.52913241		
65	2239.24621212			
8 VALUE				
	STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	0.00167049	178.22880352	15.46	0.0002
DE14	0.00656801	153.64532233	13.33	0.0006
DE13	0.01399081	324.70720790	28.16	0.0001
DE122	0.00038291	161.35261079	14.00	0.0004
DE144	0.00000548	692.43733413	60.06	0.0001
D102	0.00005950	202.41963328	17.56	0.0001
D104	0.00000080	516.09613678	44.76	0.0001
D203	-0.00027766			

THE ABOVE MODEL IS THE BEST 7 VARIABLE MODEL FOUND.



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SAS

MAXIMUM R-SQUARE IMPROVEMENT FOR DEPENDENT VARIABLE GC

STEP 8 VARIABLE FD22 ENTERED

R SQUARE = 0.71847220 C(P) = 0.86284354

DF	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
8	1608.83616188	201.10452023	18.18	0.0001
57	630.41005025	11.05982544		
65	2239.24621212			

8 VALUE	STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT				
DE14	4.21874594	188.26393446	17.02	0.0001
DE13	-0.00676442	183.40263530	16.58	0.0001
DE122	0.01577877	289.00921042	26.13	0.0001
DE144	0.00036470	177.66301259	16.06	0.0002
D102	0.00000579	709.79266128	64.18	0.0001
D104	0.00006035	194.63398843	17.60	0.0001
D203	-0.0000328	413.94457118	37.43	0.0001
D204	-0.00025742	38.27962351	3.46	0.0680
FD22	-0.09538376			

STEP 8 DE144 REPLACED BY D3D4

R SQUARE = 0.71988119 C(P) = 0.61829608

DF	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
8	1611.99122127	201.49890366	18.31	0.0001
57	611.2349085	11.00447352		
65	2239.24621212			

8 VALUE	STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT				
DE14	3.70331805	182.62841249	16.60	0.0001
DE13	-0.00613901	195.04882690	17.72	0.0001
DE122	0.01629942	338.41377125	30.75	0.0001
D102	0.00004162	710.22221643	64.54	0.0001
D104	0.00006037	252.56656986	22.95	0.0001
D203	-0.00000385	422.39033106	38.38	0.0001
D3D4	-0.00026810	180.81807199	16.43	0.0002
FD22	-0.00002111	102.58289840	19.32	0.0034

THE ABOVE MODEL IS THE BEST 8 VARIABLE MODEL FOUND.



SAS

## MAXIMUM R-SQUARE IMPROVEMENT FOR DEPENDENT VARIABLE GC

R SQUARE = 0.73971234 C(P) = -0.82366120

STEP 9 VARIABLE DET2 ENTERED

OF	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
REGRESSION	1656.39806098	184.04422900	17.68	0.0001
ERROR	582.84815114	10.40800270		
TOTAL	2239.24621212			

B VALUE	STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	4.37915550	44.40683971	4.27	0.0435
DET1	0.02181814	218.42778103	20.79	0.0001
DET2	-0.01425949	187.32230710	17.61	0.0001
DET3	0.01425949	187.32230710	17.61	0.0001
DET4	0.00035809	18.91274511	1.79	0.0001
DET5	0.00035809	18.91274511	1.79	0.0001
DET6	0.00035809	18.91274511	1.79	0.0001
DET7	0.00035809	18.91274511	1.79	0.0001
DET8	0.00035809	18.91274511	1.79	0.0001
DET9	0.00035809	18.91274511	1.79	0.0001
DET10	0.00035809	18.91274511	1.79	0.0001
DET11	0.00035809	18.91274511	1.79	0.0001
DET12	0.00035809	18.91274511	1.79	0.0001
DET13	0.00035809	18.91274511	1.79	0.0001
DET14	0.00035809	18.91274511	1.79	0.0001
DET15	0.00035809	18.91274511	1.79	0.0001
DET16	0.00035809	18.91274511	1.79	0.0001
DET17	0.00035809	18.91274511	1.79	0.0001
DET18	0.00035809	18.91274511	1.79	0.0001
DET19	0.00035809	18.91274511	1.79	0.0001
DET20	0.00035809	18.91274511	1.79	0.0001
DET21	0.00035809	18.91274511	1.79	0.0001
DET22	0.00035809	18.91274511	1.79	0.0001

THE ABOVE MODEL IS THE BEST 9 VARIABLE MODEL FOUND.

STEP 10 VARIABLE DET11 ENTERED

R SQUARE = 0.74862571 C(P) = -0.37069367

OF	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
REGRESSION	1676.35729276	167.6372928	16.38	0.0001
ERROR	562.88891936	10.23434399		
TOTAL	2239.24621212			

B VALUE	STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	4.11669642	29.95610566	2.93	0.0927
DET1	0.01898643	158.95437882	15.41	0.0001
DET2	-0.01772062	158.95437882	15.41	0.0001
DET3	0.01772062	158.95437882	15.41	0.0001
DET4	0.00035809	18.91274511	1.79	0.0001
DET5	0.00035809	18.91274511	1.79	0.0001
DET6	0.00035809	18.91274511	1.79	0.0001
DET7	0.00035809	18.91274511	1.79	0.0001
DET8	0.00035809	18.91274511	1.79	0.0001
DET9	0.00035809	18.91274511	1.79	0.0001
DET10	0.00035809	18.91274511	1.79	0.0001
DET11	0.00035809	18.91274511	1.79	0.0001
DET12	0.00035809	18.91274511	1.79	0.0001
DET13	0.00035809	18.91274511	1.79	0.0001
DET14	0.00035809	18.91274511	1.79	0.0001
DET15	0.00035809	18.91274511	1.79	0.0001
DET16	0.00035809	18.91274511	1.79	0.0001
DET17	0.00035809	18.91274511	1.79	0.0001
DET18	0.00035809	18.91274511	1.79	0.0001
DET19	0.00035809	18.91274511	1.79	0.0001
DET20	0.00035809	18.91274511	1.79	0.0001
DET21	0.00035809	18.91274511	1.79	0.0001
DET22	0.00035809	18.91274511	1.79	0.0001

THE ABOVE MODEL IS THE BEST 10 VARIABLE MODEL FOUND.



ENGINE 8V-71T 17:12 WEDNESDAY, JUNE 13, 1984 2

## GENERAL LINEAR MODELS PROCEDURE

DEPENDENT VARIABLE: GC

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE	PR > F	R-SQUARE	C.V.	
MODEL	10	1676.35729276	167.63572928	16.38	0.0001	0.748626	61.8277	
ERROR	55	562.88891936	10.23434399		ROOT MSE		GC MEAN	
CORRECTED TOTAL	65	2239.24621212			3.19911613		5.17424242	
SOURCE	DE	TYPE I SS	F VALUE	PR > F	DF	TYPE III SS	F VALUE	PR > F
DET2	1	77.71612265	7.59	0.0079	1	29.95610566	12.93	0.0927
DET4	1	305.11578226	29.81	0.0001	1	158.955481882	15.53	0.0002
FUJ13	1	0.04722508	0.00	0.9461	1	196.29501384	19.41	0.0033
DET11	1	0.00527527	0.00	0.9820	1	19.95923379	1.95	0.1682
DET12	1	46.05081743	4.30	0.0427	1	245.46137781	23.98	0.0001
D1D2	1	390.93460738	38.20	0.0001	1	455.256523966	44.48	0.0001
D1D4	1	336.2457828	32.85	0.0001	1	168.866933966	16.50	0.0002
D2D3	1	279.03590854	27.26	0.0001	1	218.13861100	20.86	0.0001
D3D4	1	155.861592398	15.21	0.0003	1	227.34279664	22.20	0.0001
D0D2	1	87.59007191	8.56	0.0050	1	87.59007191	8.56	0.0050

STD ERROR OF ESTIMATE

PR &gt; T

T FOR H0: PARAMETER=0

ESTIMATE

PARAMETER

INTERCEPT	4.11609642
DET2	0.01848643
DET4	-0.00772062
DET13	0.01247197
DET11	1.7635756E-07
DET12	0.00036647
D1D2	6.0589365E-05
D1D4	-4.4675964E-06
D2D3	-0.00029575
D3D4	2.6341138E-05
FUZZ	-0.16059826

ESTIMATE	4.96
DET2	1.71
DET4	-3.94
DET13	3.07
DET11	1.40
DET12	4.90
D1D2	6.67
D1D4	-4.06
D2D3	-0.0001
D3D4	0.0001
FUZZ	0.0050

PR > T	0.0001
DET2	0.0927
DET4	0.0002
DET13	0.0033
DET11	0.1682
DET12	0.0001
D1D2	0.0001
D1D4	0.0002
D2D3	0.0001
D3D4	0.0001
FUZZ	0.0050

STD ERROR OF ESTIMATE	0.83013532
DET2	0.01080539
DET4	0.00195905
DET13	0.00406596
DET11	0.0000013
DET12	0.00007483
D1D2	0.00000908
D1D4	0.0000110
D2D3	0.00004627
D3D4	0.00000559
FUZZ	0.05489634

OBSERVATION

OBSERVED VALUE

PREDICTED VALUE

RESIDUAL

LOWER 90% CL INDIVIDUAL

UPPER 90% CL INDIVIDUAL

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12

1	4.65160449
2	2.73678767
3	2.28821004
4	1.27183068
5	4.59610299
6	-1.78927236
7	-2.62335004
8	2.88466043
9	2.71167043
10	-0.1167043
11	-0.66452008
12	-0.34898283

1	-1.81938176
2	-3.82787223
3	-4.08106223
4	-5.43131198
5	-3.06203560
6	-8.84463313
7	-9.56200189
8	-3.74483344
9	-2.83902009
10	-2.85974745
11	-3.16871838
12	-0.10339756

1	1.13219067
2	6.36748230
3	8.05749333
4	12.23426139
5	5.26608840
6	3.1420181
7	9.51390430
8	8.26236096
9	8.18878760
10	7.86668405
11	10.82450410
12	



ENGINE 8V-71T 17:12 WEDNESDAY, JUNE 13, 1984 3

GENERAL LINEAR MODELS PROCEDURE

DEPENDENT VARIABLE: GC

OBSERVATION

OBSERVED  
VALUE

PREDICTED  
VALUE

RESIDUAL

LOWER 90% CL  
INDIVIDUAL

UPPER 90% CL  
INDIVIDUAL

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ENGINE 8V-71T

17:12 WEDNESDAY, JUNE 13, 1984

GENERAL LINEAR MODELS PROCEDURE

DEPENDENT VARIABLE: GC

OBSERVATION	OBSERVED VALUE	PREDICTED VALUE	RESIDUAL	LOWER 90% CL INDIVIDUAL	UPPER 90% CL INDIVIDUAL
64	.	-2.04927105	.	-8.6078958	4.56224748
65	.	-2.5728924	.	-9.34137862	3.89014708
66	.	-3.5728924	.	-10.34137862	3.89014708
67	.	-4.5728924	.	-11.34137862	3.89014708
68	.	3.870922443	.	-1.168703020	19.30988994
69	.	3.870922443	.	-1.168703020	19.30988994
70	.	2.130331061	.	-1.087169534	8.24109994
71	3.00000000	2.130331061	-1.80781300	-11.08716953	3.89014708
72	4.00000000	3.870922443	0.77510210	-10.86377518	10.47956160
73	5.00000000	3.870922443	1.08833002	-10.86377518	10.47956160
74	4.00000000	3.870922443	0.07162172	-11.59645309	9.41089854
75	4.00000000	3.870922443	0.07162172	-11.59645309	9.41089854
76	4.00000000	3.870922443	0.07162172	-11.59645309	9.41089854
77	4.00000000	3.870922443	0.07162172	-11.59645309	9.41089854
78	4.00000000	3.870922443	0.07162172	-11.59645309	9.41089854
79	4.00000000	3.870922443	0.07162172	-11.59645309	9.41089854
80	4.00000000	3.870922443	0.07162172	-11.59645309	9.41089854
81	4.00000000	3.870922443	0.07162172	-11.59645309	9.41089854
82	4.00000000	3.870922443	0.07162172	-11.59645309	9.41089854
83	4.00000000	3.870922443	0.07162172	-11.59645309	9.41089854
84	4.00000000	3.870922443	0.07162172	-11.59645309	9.41089854
85	4.00000000	3.870922443	0.07162172	-11.59645309	9.41089854
86	4.00000000	3.870922443	0.07162172	-11.59645309	9.41089854
87	4.00000000	3.870922443	0.07162172	-11.59645309	9.41089854
88	4.00000000	3.870922443	0.07162172	-11.59645309	9.41089854
89	4.00000000	3.870922443	0.07162172	-11.59645309	9.41089854
90	4.00000000	3.870922443	0.07162172	-11.59645309	9.41089854
91	4.00000000	3.870922443	0.07162172	-11.59645309	9.41089854
92	4.00000000	3.870922443	0.07162172	-11.59645309	9.41089854
93	4.00000000	3.870922443	0.07162172	-11.59645309	9.41089854
94	4.00000000	3.870922443	0.07162172	-11.59645309	9.41089854
95	4.00000000	3.870922443	0.07162172	-11.59645309	9.41089854
96	4.00000000	3.870922443	0.07162172	-11.59645309	9.41089854
97	4.00000000	3.870922443	0.07162172	-11.59645309	9.41089854
98	4.00000000	3.870922443	0.07162172	-11.59645309	9.41089854
99	4.00000000	3.870922443	0.07162172	-11.59645309	9.41089854
100	4.00000000	3.870922443	0.07162172	-11.59645309	9.41089854
101	4.00000000	3.870922443	0.07162172	-11.59645309	9.41089854
102	4.00000000	3.870922443	0.07162172	-11.59645309	9.41089854
103	4.00000000	3.870922443	0.07162172	-11.59645309	9.41089854
104	4.00000000	3.870922443	0.07162172	-11.59645309	9.41089854
105	4.00000000	3.870922443	0.07162172	-11.59645309	9.41089854
106	4.00000000	3.870922443	0.07162172	-11.59645309	9.41089854
107	4.00000000	3.870922443	0.07162172	-11.59645309	9.41089854
108	4.00000000	3.870922443	0.07162172	-11.59645309	9.41089854
109	4.00000000	3.870922443	0.07162172	-11.59645309	9.41089854
110	4.00000000	3.870922443	0.07162172	-11.59645309	9.41089854
111	4.00000000	3.870922443	0.07162172	-11.59645309	9.41089854
112	4.00000000	3.870922443	0.07162172	-11.59645309	9.41089854
113	4.00000000	3.870922443	0.07162172	-11.59645309	9.41089854
114	4.00000000	3.870922443	0.07162172	-11.59645309	9.41089854



ENGINE 8V-71T 17:12 WEDNESDAY, JUNE 13, 1984 5

GENERAL LINEAR MODELS PROCEDURE

DEPENDENT VARIABLE: GC

OBSERVATION OBSERVED VALUE

PREDICTED VALUE

RESIDUAL

LOWER 90% CL INDIVIDUAL

UPPER 90% CL INDIVIDUAL

15	23.05450317	.	11.84339869	34.26560766
16	16.60087921	.	17.99449417	35.70726425
17	78.07423152	.	64.85054536	91.379781
18	15.03566408	.	-5.87241073	11.2058163
19	1.81573779	.	-4.50021133	1.7163691
20	1.13527425	.	-2.50064228	1.01781236
21	1.06901586	.	14.01230812	2.5251435
22	2.02933993	.	13.01871128	8.2457107
23	4.81040914	-2.81040914	13.55933635	11.3096587
24	2.68488076	.	-0.31399336	11.53753056
25	5.94427525	.	0.3101992	12.04228840
26	6.38944391	.	0.31360551	12.08336970
27	10.08617232	.	3.13237442	16.73697047
28	4.05971668	-0.45971668	-1.44329880	10.29860315
29	6.10737402	-2.60252868	42.55846220	12.67865152
30	17.01464928	.	1.01693470	18.8876153
31	1.52272243	.	-4.22484414	7.20701506
32	1.86782250	.	-5.22421078	10.57023114
33	1.69794230	.	-7.07178633	15.83149877
34	-0.79791426	.	-7.07178633	5.83614639
35	-1.87835308	.	-7.07178633	4.98424809
36	-1.33044342	.	-7.07178633	9.62915113
37	1.23666400	.	-1.03993393	19.19471081
38	10.89336683	.	-2.33333333	19.19471081
39	2.31006339	.	-1.03993393	19.19471081
40	8.18534577	.	-1.03993393	19.19471081
41	14.72708327	.	-1.03993393	19.19471081
42	15.77011532	.	-1.03993393	19.19471081
43	2.06032938	.	-1.03993393	19.19471081
44	6.73993886	.	-1.03993393	19.19471081
45	11.35166621	.	-1.03993393	19.19471081
46	9.16090834	.	-1.03993393	19.19471081
47	1.17702453	.	-1.03993393	19.19471081
48	2.47329561	.	-1.03993393	19.19471081
49	0.98168105	.	-1.03993393	19.19471081
50	3.00000000	1.19938866	3.80674295	17.0808168
51	3.00000000	0.5503389	3.5506689	17.0808168
52	3.00000000	2.01831895	4.69918561	17.0808168



## GENERAL LINEAR MODELS PROCEDURE

DEPENDENT VARIABLE: GC

OBSERVATION	OBSERVED VALUE	PREDICTED VALUE	RESIDUAL	LOWER 90% CL INDIVIDUAL	UPPER 90% CL INDIVIDUAL
166	2.00000000	3.22837774	-1.22837774	-3.58213862	9.03889410
167	4.00000000	2.32036175	-1.67963825	-3.26053543	7.90125893
168	8.00000000	10.11457409	-2.14574097	4.06401627	16.22405067
169	10.00000000	9.11381118	-0.88638882	3.17871143	15.04645094
170	5.00000000	0.6428782	4.35743218	-3.30571477	8.31689042
171	2.00000000	0.82682476	-0.82682476	-2.66899008	4.32633960
172	.	4.01376338	.	-1.51983709	9.54216385
173	.	21.5795137	.	-2.99138556	37.16910310
174	.	26.49457596	.	-6.07172686	55.08163415
175	2.00000000	0.2405579	0.73754325	-2.3961850	3.8738770
176	3.00000000	1.2625597	-1.81610797	-4.25980331	7.3383470
177		4.81610797			10.89201929

\* OBSERVATION WAS NOT USED IN THIS ANALYSIS

SUM OF RESIDUALS  
SUM OF SQUARED RESIDUALS - ERROR SS  
PRESS. STATISTIC  
FIRST ORDER AUTOCORRELATION  
DURBIN-WATSON D







## UNIVARIATE

VARIABLE=CL2

## FREQUENCY TABLE (CONT.)

VALUE	COUNT	PERCENTS CELL	CUM	VALUE	COUNT	PERCENTS CELL	CUM	VALUE	COUNT	PERCENTS CELL	CUM	VALUE	COUNT	PERCENTS CELL	CUM
15.53	1	0.6	37.9	24.56	1	0.6	54.2	30.98	1	0.6	70.1	39.07	1	0.6	85.9
16.19	1	0.6	39.5	24.63	1	0.6	55.8	31.03	1	0.6	70.7	40.07	1	0.6	86.5
16.23	1	0.6	40.1	24.85	1	0.6	56.4	31.14	1	0.6	71.3	42.22	1	0.6	87.1
17.37	1	0.6	40.7	25.02	1	0.6	57.0	31.51	1	0.6	71.9	43.05	1	0.6	87.7
18.85	1	0.6	41.3	25.31	1	0.6	57.6	32.79	1	0.6	72.5	44.93	1	0.6	88.3
19.57	1	0.6	41.9	25.42	1	0.6	58.2	32.98	1	0.6	73.1	45.32	1	0.6	88.9
20.04	1	0.6	42.5	25.59	1	0.6	58.8	33.05	1	0.6	73.7	45.73	1	0.6	89.5
21.24	1	0.6	43.1	25.97	1	0.6	59.4	33.22	1	0.6	74.3	46.19	1	0.6	90.1
21.83	1	0.6	43.7	26.23	1	0.6	60.0	33.33	1	0.6	74.9	47.07	1	0.6	90.7
22.49	1	0.6	44.3	26.56	1	0.6	60.6	33.52	1	0.6	75.5	47.93	1	0.6	91.3
22.91	1	0.6	44.9	26.71	1	0.6	61.2	33.89	1	0.6	76.1	50.61	1	0.6	91.9
23.94	1	0.6	45.5	27.59	1	0.6	61.8	34.04	1	0.6	76.7	50.65	1	0.6	92.5
24.99	1	0.6	46.1	28.81	1	0.6	62.4	34.31	1	0.6	77.3	53.53	1	0.6	93.1
25.94	1	0.6	46.7	29.79	1	0.6	63.0	34.72	1	0.6	77.9	58.32	1	0.6	93.7
26.99	1	0.6	47.3	29.81	1	0.6	63.6	35.23	1	0.6	78.5	63.32	1	0.6	94.3
27.94	1	0.6	47.9	29.89	1	0.6	64.2	35.71	1	0.6	79.1	63.32	1	0.6	94.9
28.99	1	0.6	48.5	29.93	1	0.6	64.8	36.23	1	0.6	79.7	63.32	1	0.6	95.5
29.94	1	0.6	49.1	29.97	1	0.6	65.4	36.71	1	0.6	80.3	63.32	1	0.6	96.1
30.99	1	0.6	49.7	30.03	1	0.6	66.0	37.23	1	0.6	80.9	63.32	1	0.6	96.7
31.94	1	0.6	50.3	30.12	1	0.6	66.6	37.71	1	0.6	81.5	63.32	1	0.6	97.3
32.99	1	0.6	50.9	30.12	1	0.6	67.2	38.23	1	0.6	82.1	63.32	1	0.6	97.9
33.94	1	0.6	51.5	30.12	1	0.6	67.8	38.82	1	0.6	82.7	63.32	1	0.6	98.5
34.99	1	0.6	52.1	30.12	1	0.6	68.4	38.82	1	0.6	83.3	63.32	1	0.6	99.1
35.94	1	0.6	52.7	30.12	1	0.6	69.0	38.82	1	0.6	83.9	63.32	1	0.6	99.7
36.99	1	0.6	53.3	30.12	1	0.6	69.6	38.82	1	0.6	84.5	63.32	1	0.6	100.0



UNIVARIATE									
VARIABLE=DET1					QUANTILES(DEF=4)				
NUMENTS					EXTREMES				
N	MEAN	175	SUM	WGTS	100% MAX	6063.97	99%	6059.72	LOWEST
STD DEV	705.178	123406	123406	175	75% Q3	1217.18	95%	2115.89	1257.39
SKEWNESS	1070.82	1146657	1146657	175	50% MED	492.01	90%	1722.81	3837.18
CV	2.26063	8.44725	8.44725	175	25% Q1	-322.144	10%	-322.144	3840.93
TIMEAN=0	8.71166	199518233	199518233	175	0% MIN	-1257.39	5%	-475.028	3572.43
SGN RANK	56165	80.9664	80.9664	175	RANGE	7321.36	1%	-590.27	6058.38
NUM	174	0.0001	0.0001	175	MODE	-1257.39			6063.97
MISSING VALUE									
COUNT									
COUNT/NORS									
1.13									
BOXPLOT									
6250+									
4750+									
3250+									
1750+									
250+									
-1250+									
MULTIPLY STEM LEAF BY 10**+03									



## UNIVARIATE

VARIABLE=NET1

## FREQUENCY TABLE (CONT.)

VALUE	COUNT	PERCENTS CELL	CUM PERCENTS	VALUE	COUNT	PERCENTS CELL	CUM PERCENTS	VALUE	COUNT	PERCENTS CELL	CUM PERCENTS	VALUE	COUNT	PERCENTS CELL	CUM PERCENTS
177.17	1	0.6	32.6	899.34	1	0.6	67.4	1568.29	1	0.6	82.0	1578.85	1	0.6	82.6
189.47	1	0.6	33.1	909.71	1	0.6	68.0	1578.85	1	0.6	82.6	1578.85	1	0.6	82.6
197.98	1	0.6	33.7	911.05	1	0.6	68.6	1578.85	1	0.6	82.6	1578.85	1	0.6	82.6
213.96	1	0.6	34.3	944.94	1	0.6	69.1	1578.85	1	0.6	82.6	1578.85	1	0.6	82.6
222.52	1	0.6	34.9	966.33	1	0.6	69.7	1578.85	1	0.6	82.6	1578.85	1	0.6	82.6
227.76	1	0.6	35.4	973.65	1	0.6	70.3	1578.85	1	0.6	82.6	1578.85	1	0.6	82.6
249.67	1	0.6	36.0	981.63	1	0.6	70.9	1578.85	1	0.6	82.6	1578.85	1	0.6	82.6
251.01	1	0.6	36.6	1028.82	1	0.6	71.4	1578.85	1	0.6	82.6	1578.85	1	0.6	82.6
262.01	1	0.6	37.1	1041.42	1	0.6	72.0	1578.85	1	0.6	82.6	1578.85	1	0.6	82.6
268.74	1	0.6	37.7	1054.43	1	0.6	72.6	1578.85	1	0.6	82.6	1578.85	1	0.6	82.6
270.58	1	0.6	38.3	1090.84	1	0.6	73.1	1578.85	1	0.6	82.6	1578.85	1	0.6	82.6
277.15	1	0.6	38.9	1125.84	1	0.6	73.7	1578.85	1	0.6	82.6	1578.85	1	0.6	82.6
300.93	1	0.6	40.6	1208.18	1	0.6	74.3	1578.85	1	0.6	82.6	1578.85	1	0.6	82.6
305.21	1	0.6	41.1	1217.24	1	0.6	74.9	1578.85	1	0.6	82.6	1578.85	1	0.6	82.6
305.65	1	0.6	41.7	1308.42	1	0.6	75.5	1578.85	1	0.6	82.6	1578.85	1	0.6	82.6
325.61	1	0.6	42.3	1312.72	1	0.6	76.1	1578.85	1	0.6	82.6	1578.85	1	0.6	82.6
335.14	1	0.6	42.9	1322.99	1	0.6	76.7	1578.85	1	0.6	82.6	1578.85	1	0.6	82.6
336.04	1	0.6	43.4	1325.42	1	0.6	77.3	1578.85	1	0.6	82.6	1578.85	1	0.6	82.6
336.39	1	0.6	44.0	1325.99	1	0.6	77.9	1578.85	1	0.6	82.6	1578.85	1	0.6	82.6
339.39	1	0.6	44.6	1427.61	1	0.6	78.5	1578.85	1	0.6	82.6	1578.85	1	0.6	82.6
339.65	1	0.6	45.1	1437.94	1	0.6	79.1	1578.85	1	0.6	82.6	1578.85	1	0.6	82.6
342.51	1	0.6	45.7	1439.08	1	0.6	79.7	1578.85	1	0.6	82.6	1578.85	1	0.6	82.6
445.52	1	0.6	46.3	1512.504	1	0.6	80.3	1578.85	1	0.6	82.6	1578.85	1	0.6	82.6
449.05	1	0.6	46.9	1512.82	1	0.6	80.9	1578.85	1	0.6	82.6	1578.85	1	0.6	82.6
449.54	1	0.6	47.4	1512.93	1	0.6	81.5	1578.85	1	0.6	82.6	1578.85	1	0.6	82.6
465.67	1	0.6	48.0	1514.22	1	0.6	82.1	1578.85	1	0.6	82.6	1578.85	1	0.6	82.6
			48.6				82.7								
			49.1				83.3								



ENGINE BV-717

17141 MONDAY, JUNE 4, 1984 17

## UNIVARIATE

VARIABLE=DET2

## MOMENTS

## QUANTILES(DEF=4)

## EXTREMES

N MEAN 175 SUM HGTS 175  
 STD DEV 78.9683 SUM VARIANCE 13819.5  
 SKEWNESS 0.0762438 KURTOSIS -0.737041  
 USS 4008999 CSS 2917700  
 CV 163.981 STD MEAN 9.78874  
 TIMEAN=0 8.06727 PRD>T- 0.0001  
 SGN-RANK 4441.5 PRD>S- -272.4  
 NUM = 0 4441.5

MISSING VALUE  
 COUNT  
 % COUNT/NOBS 1.13

## NORMAL PROBABILITY PLOT

BOXPLOT 3754

STEM LEAF  
 3 113444  
 3 15556677899  
 2 000000112223333  
 2 55666667788899999999  
 1 0001112233444  
 1 566666677788899999  
 0 1111222333344444  
 0 444444433333333221111100000000  
 -0 9998888665  
 -1 4332221100  
 -1 555  
 -2 7  
 -2 7

6-71

MULTIPLY STEM LEAF BY 10\*\*02

## FREQUENCY TABLE

VALUE	COUNT	PERCENTS	CUM	VALUE	COUNT	PERCENTS	CUM	VALUE	COUNT	PERCENTS	CUM
-172.94	1	0.6	0.6	-36.34	1	0.6	18.9	-11.93	1	0.6	28.0
-153.03	1	0.6	1.2	-35.04	1	0.6	19.4	-11.45	1	0.6	28.6
-132.97	1	0.6	1.8	-33.41	1	0.6	20.0	-9.41	1	0.6	29.1
-132.97	1	0.6	2.4	-33.04	1	0.6	20.6	-8.61	1	0.6	29.7
-132.97	1	0.6	3.0	-32.25	1	0.6	21.1	-6.37	1	0.6	30.3
-128.36	1	0.6	3.6	-31.69	1	0.6	21.7	-1.14	1	0.6	30.9
-124.34	1	0.6	4.2	-31.14	1	0.6	22.3	0.03	1	0.6	31.4
-120.06	1	0.6	4.8	-28.54	1	0.6	22.9	1.96	1	0.6	32.0
-110.06	1	0.6	5.4	-26.37	1	0.6	23.4	2.01	1	0.6	32.6
-114.04	1	0.6	6.0	-23.64	1	0.6	24.0	3.139	1	0.6	33.1
-107.55	1	0.6	6.6	-22.16	1	0.6	24.6	3.39	1	0.6	33.7
-103.98	1	0.6	7.2	-19.55	1	0.6	25.1	4.1528	1	0.6	34.3
-96.98	1	0.6	7.8	-13.75	1	0.6	25.7	5.58	1	0.6	34.9
-94.96	1	0.6	8.4		1	0.6	26.3	8.577	1	0.6	35.4
							26.9				36.0
							27.4				36.6



## UNIVARIATE

VARIABLE=DET2

## FREQUENCY TABLE (CONT.)

VALUE	COUNT	PERCENTS CELL	CUM	VALUE	COUNT	PERCENTS CELL	CUM	VALUE	COUNT	PERCENTS CELL	CUM	VALUE	COUNT	PERCENTS CELL	CUM
10.49	1	0.6	37.1	164.48	1	0.6	69.7	221.47	1	0.6	85.1	221.47	1	0.6	85.1
13.14	1	0.6	37.7	169.94	1	0.6	70.3	222.55	1	0.6	85.7	222.55	1	0.6	85.7
15.17	1	0.6	38.3	171.48	1	0.6	70.9	223.67	1	0.6	86.3	223.67	1	0.6	86.3
17.06	1	0.6	38.9	174.48	1	0.6	71.5	224.79	1	0.6	86.9	224.79	1	0.6	86.9
22.08	1	0.6	39.4	179.45	1	0.6	72.1	225.91	1	0.6	87.5	225.91	1	0.6	87.5
26.08	1	0.6	40.0	183.45	1	0.6	72.7	227.03	1	0.6	88.1	227.03	1	0.6	88.1
31.05	1	0.6	41.1	186.45	1	0.6	73.3	228.15	1	0.6	88.7	228.15	1	0.6	88.7
39.41	1	0.6	42.2	188.45	1	0.6	73.9	229.27	1	0.6	89.3	229.27	1	0.6	89.3
41.35	1	0.6	42.8	189.45	1	0.6	74.5	230.39	1	0.6	89.9	230.39	1	0.6	89.9
43.60	1	0.6	43.4	190.45	1	0.6	75.1	231.51	1	0.6	90.5	231.51	1	0.6	90.5
44.19	1	0.6	44.0	190.97	1	0.6	75.7	232.63	1	0.6	91.1	232.63	1	0.6	91.1
52.33	1	0.6	45.1	191.08	1	0.6	76.3	233.75	1	0.6	91.7	233.75	1	0.6	91.7
58.42	1	0.6	46.3	192.08	1	0.6	76.9	234.87	1	0.6	92.3	234.87	1	0.6	92.3
60.71	1	0.6	46.9	194.06	1	0.6	77.5	235.99	1	0.6	92.9	235.99	1	0.6	92.9
61.05	1	0.6	47.4	195.16	1	0.6	78.1	237.11	1	0.6	93.5	237.11	1	0.6	93.5
63.50	1	0.6	48.0	196.22	1	0.6	78.7	238.23	1	0.6	94.1	238.23	1	0.6	94.1
64.81	1	0.6	49.1	197.49	1	0.6	79.3	239.35	1	0.6	94.7	239.35	1	0.6	94.7
66.77	1	0.6	49.7	198.52	1	0.6	79.9	240.47	1	0.6	95.3	240.47	1	0.6	95.3
73.03	1	0.6	50.9	202.13	1	0.6	80.6	241.59	1	0.6	95.9	241.59	1	0.6	95.9
77.5	1	0.6	52.0	208.17	1	0.6	81.2	242.71	1	0.6	96.5	242.71	1	0.6	96.5
		0.6	52.6	210.67	1	0.6	81.8	243.83	1	0.6	97.1	243.83	1	0.6	97.1
		0.6	53.2	220.67	1	0.6	82.4	244.95	1	0.6	97.7	244.95	1	0.6	97.7
		0.6	53.8	220.67	1	0.6	83.0	246.07	1	0.6	98.3	246.07	1	0.6	98.3
		0.6	54.4	220.67	1	0.6	83.6	247.19	1	0.6	98.9	247.19	1	0.6	98.9
		0.6	55.0	220.67	1	0.6	84.2	248.31	1	0.6	99.5	248.31	1	0.6	99.5
		0.6	55.6	220.67	1	0.6	84.8	249.43	1	0.6	100.0	249.43	1	0.6	100.0







AD-A152 994

EVALUATION OF USED CRANKCASE OILS USING COMPUTERIZED  
INFRARED SPECTROMETR. (U) JOINT OIL ANALYSIS PROGRAM  
PENSACOLA FL TECHNICAL SUPPORT CEN. B B MCCAA ET AL.

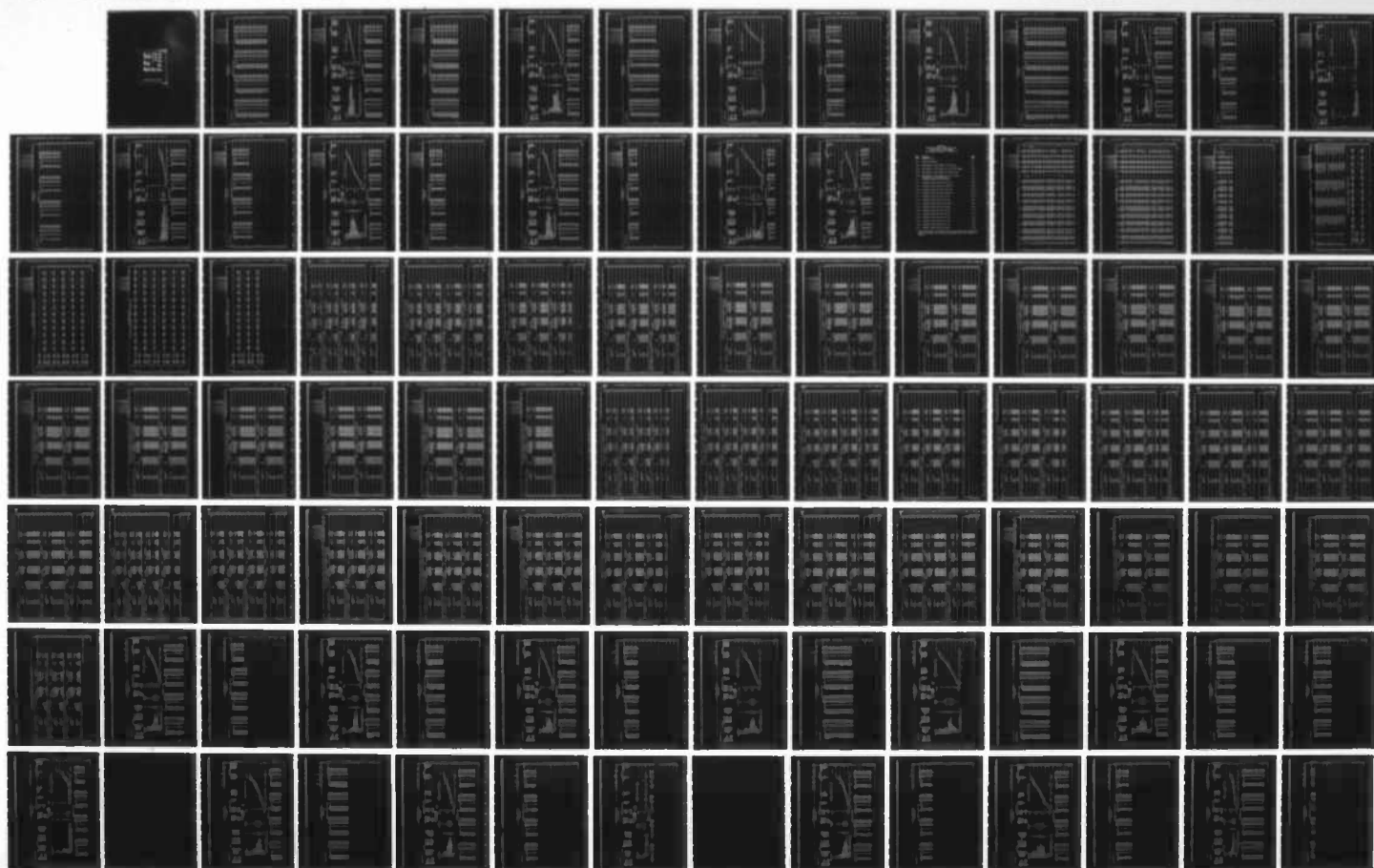
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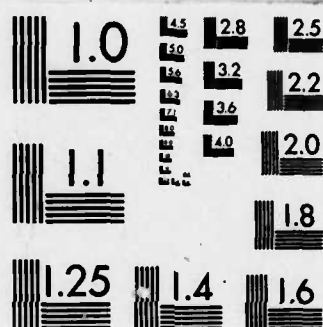
JUN 84 JOAP-TSC-84-01-APP

F/G 20/6

NL







MICROCOPY RESOLUTION TEST CHART  
NATIONAL BUREAU OF STANDARDS-1963-A



ENGINE 8V-711 1141 MONDAY, JUNE 4, 1984 20

UNIVARIATE

VARIABLE=DET3

FREQUENCY TABLE (CONT.)

VALUE	COUNT	PERCENTS CELL	CUM	VALUE	COUNT	PERCENTS CELL	CUM	VALUE	COUNT	PERCENTS CELL	CUM	VALUE	COUNT	PERCENTS CELL	CUM
125.66	1	0.6	25.7	380.37	1	0.6	63.4	535.64	1	0.6	82.3	540.91	1	0.6	82.9
133.37	1	0.6	26.3	381.52	1	0.6	64.0	540.91	1	0.6	83.4	541.55	1	0.6	84.0
134.26	1	0.6	26.9	385.52	1	0.6	64.6	541.55	1	0.6	84.0	542.19	1	0.6	84.6
137.59	1	0.6	27.4	392.44	1	0.6	65.1	542.19	1	0.6	84.6	542.83	1	0.6	85.1
139.53	1	0.6	28.0	396.11	1	0.6	65.3	542.83	1	0.6	85.1	543.47	1	0.6	85.7
140.55	1	0.6	28.6	397.72	1	0.6	66.3	543.47	1	0.6	85.7	544.11	1	0.6	86.3
141.56	1	0.6	29.1	411.99	1	0.6	66.9	544.11	1	0.6	86.3	544.75	1	0.6	86.9
146.12	1	0.6	29.3	415.35	1	0.6	67.4	544.75	1	0.6	86.9	545.39	1	0.6	87.4
148.12	1	0.6	30.0	427.3	1	0.6	68.6	545.39	1	0.6	87.4	546.03	1	0.6	88.0
162.58	1	0.6	31.0	441.82	1	0.6	69.1	546.03	1	0.6	88.0	546.67	1	0.6	88.6
163.17	1	0.6	32.3	444.53	1	0.6	69.3	546.67	1	0.6	88.6	547.31	1	0.6	89.1
173.35	1	0.6	33.3	451.15	1	0.6	70.3	547.31	1	0.6	89.1	547.95	1	0.6	90.3
174.67	1	0.6	33.7	453.5	1	0.6	71.4	547.95	1	0.6	90.3	548.59	1	0.6	91.4
179.89	1	0.6	34.5	455.63	1	0.6	72.6	548.59	1	0.6	91.4	549.23	1	0.6	92.4
181.11	1	0.6	35.4	456.5	1	0.6	73.3	549.23	1	0.6	92.4	549.87	1	0.6	93.4
187.02	1	0.6	36.0	457.6	1	0.6	74.3	549.87	1	0.6	93.4	550.51	1	0.6	94.4
191.51	1	0.6	37.7	458.32	1	0.6	75.4	550.51	1	0.6	94.4	551.15	1	0.6	95.4
198.61	1	0.6	38.9	461.32	1	0.6	76.0	551.15	1	0.6	95.4	551.79	1	0.6	96.4
200.1	1	0.6	39.4	462.32	1	0.6	77.3	551.79	1	0.6	96.4	552.43	1	0.6	97.4
206.06	1	0.6	40.0	468.2	1	0.6	78.3	552.43	1	0.6	97.4	553.07	1	0.6	98.4
207.5	1	0.6	40.6	470.34	1	0.6	79.4	553.07	1	0.6	98.4	553.71	1	0.6	99.4
209.44	1	0.6	41.1	475.04	1	0.6	80.6	553.71	1	0.6	99.4	554.35	1	0.6	100.0
211.76	1	0.6	42.3	478.15	1	0.6	81.1	554.35	1	0.6	100.0				
213.12	1	0.6	43.4	485.15	1	0.6	81.7								
225.62	1	0.6	44.4	506.44	1	0.6	81.7								
226.4	1	0.6	44.4	525.35	1	0.6	81.7								
233.47	1	0.6	44.4	530.35	1	0.6	81.7								







ENGINE BV-711 17141 MONDAY, JUNE 4, 1984 22

UNIVARIATE

VARIABLE=NET4

FREQUENCY TABLE (CONT.)

VALUE	COUNT	PERCENTS CELL	CUM	VALUE	COUNT	PERCENTS CELL	CUM	VALUE	COUNT	PERCENTS CELL	CUM	VALUE	COUNT	PERCENTS CELL	CUM
731.01	1	0.6	39.4	1060.81	1	0.6	54.9	1411.94	1	0.6	70.3	1792.54	1	0.6	85.7
735.74	1	0.6	40.0	1098.86	1	0.6	55.4	1428.15	1	0.6	70.9	1796.29	1	0.6	86.3
770.48	1	0.6	41.1	1106.52	1	0.6	56.0	1448.52	1	0.6	71.4	1804.65	1	0.6	86.9
818.44	1	0.6	41.7	1113.25	1	0.6	56.6	1493.25	1	0.6	72.0	1814.94	1	0.6	87.4
824.44	1	0.6	42.3	1119.45	1	0.6	57.1	1511.94	1	0.6	72.6	1825.66	1	0.6	88.0
832.08	1	0.6	42.9	1125.37	1	0.6	57.7	1532.80	1	0.6	73.1	1838.81	1	0.6	88.6
843.59	1	0.6	43.4	1130.43	1	0.6	58.3	1555.50	1	0.6	73.7	1855.44	1	0.6	89.1
859.57	1	0.6	44.0	1135.43	1	0.6	58.9	1580.02	1	0.6	74.3	1875.44	1	0.6	89.7
863.57	1	0.6	44.6	1140.43	1	0.6	59.4	1602.09	1	0.6	74.9	1895.44	1	0.6	90.3
869.61	1	0.6	45.1	1145.43	1	0.6	60.0	1622.09	1	0.6	75.4	1913.05	1	0.6	90.9
881.62	1	0.6	45.7	1150.43	1	0.6	60.6	1648.13	1	0.6	76.0	1930.55	1	0.6	91.4
894.94	1	0.6	46.3	1155.43	1	0.6	61.1	1672.09	1	0.6	76.6	1945.44	1	0.6	92.0
973.01	1	0.6	46.9	1160.43	1	0.6	61.7	1698.67	1	0.6	77.1	1968.44	1	0.6	92.6
977.44	1	0.6	47.4	1165.43	1	0.6	62.3	1722.09	1	0.6	77.7	1985.09	1	0.6	93.1
980.44	1	0.6	48.0	1170.43	1	0.6	62.9	1745.44	1	0.6	78.3	1998.09	1	0.6	93.7
996.23	1	0.6	48.6	1175.43	1	0.6	63.5	1768.44	1	0.6	78.9	2007.55	1	0.6	94.3
1008.29	1	0.6	49.1	1180.43	1	0.6	64.0	1789.24	1	0.6	79.4	2020.81	1	0.6	94.9
1020.54	1	0.6	49.7	1185.43	1	0.6	64.6	1792.54	1	0.6	80.0	2035.44	1	0.6	95.5
1033.61	1	0.6	50.3	1190.43	1	0.6	65.1	1796.29	1	0.6	80.6	2048.44	1	0.6	96.1
1039.14	1	0.6	50.9	1195.43	1	0.6	65.7	1804.65	1	0.6	81.1	2061.44	1	0.6	96.7
1056.92	1	0.6	51.4	1200.43	1	0.6	66.3	1814.94	1	0.6	81.7	2075.44	1	0.6	97.3
				1205.43	1	0.6	66.9	1825.66	1	0.6	82.3	2088.44	1	0.6	97.9
				1210.43	1	0.6	67.4	1838.81	1	0.6	82.9	2101.44	1	0.6	98.5
				1215.43	1	0.6	68.0	1855.44	1	0.6	83.5	2114.44	1	0.6	99.1
				1220.43	1	0.6	68.6	1875.44	1	0.6	84.1	2127.44	1	0.6	99.7
				1225.43	1	0.6	69.1	1895.44	1	0.6	84.7	2140.44	1	0.6	100.0

B







UNIVARIATE

VARIABLE=FD1

FREQUENCY TABLE (CONT.)

VALUE	COUNT	PERCENTS CELL	PERCENTS CUM	VALUE	COUNT	PERCENTS CELL	PERCENTS CUM	VALUE	COUNT	PERCENTS CELL	PERCENTS CUM	VALUE	COUNT	PERCENTS CELL	PERCENTS CUM
-1.23	1	0.6	0.6	1.43	1	0.6	66.3	1.81	1	0.6	66.3	3.81	1	0.6	66.3
-1.22	2	1.2	1.8	1.42	2	1.2	67.5	3.80	1	0.6	68.1	3.80	1	0.6	68.1
-1.21	2	1.2	3.0	1.41	2	1.2	68.7	3.79	1	0.6	68.7	3.79	1	0.6	68.7
-1.20	2	1.2	4.2	1.40	2	1.2	69.3	3.78	1	0.6	69.3	3.78	1	0.6	69.3
-1.19	2	1.2	5.4	1.39	2	1.2	70.0	3.77	1	0.6	70.0	3.77	1	0.6	70.0
-1.18	2	1.2	6.6	1.38	2	1.2	70.6	3.76	1	0.6	70.6	3.76	1	0.6	70.6
-1.17	2	1.2	7.8	1.37	2	1.2	71.2	3.75	1	0.6	71.2	3.75	1	0.6	71.2
-1.16	2	1.2	9.0	1.36	2	1.2	71.8	3.74	1	0.6	71.8	3.74	1	0.6	71.8
-1.15	2	1.2	10.2	1.35	2	1.2	72.4	3.73	1	0.6	72.4	3.73	1	0.6	72.4
-1.14	2	1.2	11.4	1.34	2	1.2	73.0	3.72	1	0.6	73.0	3.72	1	0.6	73.0
-1.13	2	1.2	12.6	1.33	2	1.2	73.6	3.71	1	0.6	73.6	3.71	1	0.6	73.6
-1.12	2	1.2	13.8	1.32	2	1.2	74.2	3.70	1	0.6	74.2	3.70	1	0.6	74.2
-1.11	2	1.2	15.0	1.31	2	1.2	74.8	3.69	1	0.6	74.8	3.69	1	0.6	74.8
-1.10	2	1.2	16.2	1.30	2	1.2	75.4	3.68	1	0.6	75.4	3.68	1	0.6	75.4
-1.09	2	1.2	17.4	1.29	2	1.2	76.0	3.67	1	0.6	76.0	3.67	1	0.6	76.0
-1.08	2	1.2	18.6	1.28	2	1.2	76.6	3.66	1	0.6	76.6	3.66	1	0.6	76.6
-1.07	2	1.2	19.8	1.27	2	1.2	77.2	3.65	1	0.6	77.2	3.65	1	0.6	77.2
-1.06	2	1.2	21.0	1.26	2	1.2	77.8	3.64	1	0.6	77.8	3.64	1	0.6	77.8
-1.05	2	1.2	22.2	1.25	2	1.2	78.4	3.63	1	0.6	78.4	3.63	1	0.6	78.4
-1.04	2	1.2	23.4	1.24	2	1.2	79.0	3.62	1	0.6	79.0	3.62	1	0.6	79.0
-1.03	2	1.2	24.6	1.23	2	1.2	79.6	3.61	1	0.6	79.6	3.61	1	0.6	79.6
-1.02	2	1.2	25.8	1.22	2	1.2	80.2	3.60	1	0.6	80.2	3.60	1	0.6	80.2
-1.01	2	1.2	27.0	1.21	2	1.2	80.8	3.59	1	0.6	80.8	3.59	1	0.6	80.8
-1.00	2	1.2	28.2	1.20	2	1.2	81.4	3.58	1	0.6	81.4	3.58	1	0.6	81.4
-0.99	2	1.2	29.4	1.19	2	1.2	82.0	3.57	1	0.6	82.0	3.57	1	0.6	82.0
-0.98	2	1.2	30.6	1.18	2	1.2	82.6	3.56	1	0.6	82.6	3.56	1	0.6	82.6
-0.97	2	1.2	31.8	1.17	2	1.2	83.2	3.55	1	0.6	83.2	3.55	1	0.6	83.2
-0.96	2	1.2	33.0	1.16	2	1.2	83.8	3.54	1	0.6	83.8	3.54	1	0.6	83.8
-0.95	2	1.2	34.2	1.15	2	1.2	84.4	3.53	1	0.6	84.4	3.53	1	0.6	84.4
-0.94	2	1.2	35.4	1.14	2	1.2	85.0	3.52	1	0.6	85.0	3.52	1	0.6	85.0
-0.93	2	1.2	36.6	1.13	2	1.2	85.6	3.51	1	0.6	85.6	3.51	1	0.6	85.6
-0.92	2	1.2	37.8	1.12	2	1.2	86.2	3.50	1	0.6	86.2	3.50	1	0.6	86.2
-0.91	2	1.2	39.0	1.11	2	1.2	86.8	3.49	1	0.6	86.8	3.49	1	0.6	86.8
-0.90	2	1.2	40.2	1.10	2	1.2	87.4	3.48	1	0.6	87.4	3.48	1	0.6	87.4
-0.89	2	1.2	41.4	1.09	2	1.2	88.0	3.47	1	0.6	88.0	3.47	1	0.6	88.0
-0.88	2	1.2	42.6	1.08	2	1.2	88.6	3.46	1	0.6	88.6	3.46	1	0.6	88.6
-0.87	2	1.2	43.8	1.07	2	1.2	89.2	3.45	1	0.6	89.2	3.45	1	0.6	89.2
-0.86	2	1.2	45.0	1.06	2	1.2	89.8	3.44	1	0.6	89.8	3.44	1	0.6	89.8
-0.85	2	1.2	46.2	1.05	2	1.2	90.4	3.43	1	0.6	90.4	3.43	1	0.6	90.4
-0.84	2	1.2	47.4	1.04	2	1.2	91.0	3.42	1	0.6	91.0	3.42	1	0.6	91.0
-0.83	2	1.2	48.6	1.03	2	1.2	91.6	3.41	1	0.6	91.6	3.41	1	0.6	91.6
-0.82	2	1.2	49.8	1.02	2	1.2	92.2	3.40	1	0.6	92.2	3.40	1	0.6	92.2
-0.81	2	1.2	51.0	1.01	2	1.2	92.8	3.39	1	0.6	92.8	3.39	1	0.6	92.8
-0.80	2	1.2	52.2	1.00	2	1.2	93.4	3.38	1	0.6	93.4	3.38	1	0.6	93.4
-0.79	2	1.2	53.4	0.99	2	1.2	94.0	3.37	1	0.6	94.0	3.37	1	0.6	94.0
-0.78	2	1.2	54.6	0.98	2	1.2	94.6	3.36	1	0.6	94.6	3.36	1	0.6	94.6
-0.77	2	1.2	55.8	0.97	2	1.2	95.2	3.35	1	0.6	95.2	3.35	1	0.6	95.2
-0.76	2	1.2	57.0	0.96	2	1.2	95.8	3.34	1	0.6	95.8	3.34	1	0.6	95.8
-0.75	2	1.2	58.2	0.95	2	1.2	96.4	3.33	1	0.6	96.4	3.33	1	0.6	96.4
-0.74	2	1.2	59.4	0.94	2	1.2	97.0	3.32	1	0.6	97.0	3.32	1	0.6	97.0
-0.73	2	1.2	60.6	0.93	2	1.2	97.6	3.31	1	0.6	97.6	3.31	1	0.6	97.6
-0.72	2	1.2	61.8	0.92	2	1.2	98.2	3.30	1	0.6	98.2	3.30	1	0.6	98.2
-0.71	2	1.2	63.0	0.91	2	1.2	98.8	3.29	1	0.6	98.8	3.29	1	0.6	98.8
-0.70	2	1.2	64.2	0.90	2	1.2	99.4	3.28	1	0.6	99.4	3.28	1	0.6	99.4
-0.69	2	1.2	65.4	0.89	2	1.2	100.0	3.27	1	0.6	100.0	3.27	1	0.6	100.0
-0.68	2	1.2	66.6	0.88	2	1.2		3.26	1	0.6		3.26	1	0.6	
-0.67	2	1.2	67.8	0.87	2	1.2		3.25	1	0.6		3.25	1	0.6	
-0.66	2	1.2	69.0	0.86	2	1.2		3.24	1	0.6		3.24	1	0.6	
-0.65	2	1.2	70.2	0.85	2	1.2		3.23	1	0.6		3.23	1	0.6	
-0.64	2	1.2	71.4	0.84	2	1.2		3.22	1	0.6		3.22	1	0.6	
-0.63	2	1.2	72.6	0.83	2	1.2		3.21	1	0.6		3.21	1	0.6	
-0.62	2	1.2	73.8	0.82	2	1.2		3.20	1	0.6		3.20	1	0.6	
-0.61	2	1.2	75.0	0.81	2	1.2		3.19	1	0.6		3.19	1	0.6	
-0.60	2	1.2	76.2	0.80	2	1.2		3.18	1	0.6		3.18	1	0.6	
-0.59	2	1.2	77.4	0.79	2	1.2		3.17	1	0.6		3.17	1	0.6	
-0.58	2	1.2	78.6	0.78	2	1.2		3.16	1	0.6		3.16	1	0.6	
-0.57	2	1.2	79.8	0.77	2	1.2		3.15	1	0.6		3.15	1	0.6	
-0.56	2	1.2	81.0	0.76	2	1.2		3.14	1	0.6		3.14	1	0.6	
-0.55	2	1.2	82.2	0.75	2	1.2		3.13	1	0.6		3.13	1	0.6	
-0.54	2	1.2	83.4	0.74	2	1.2		3.12	1	0.6		3.12	1	0.6	
-0.53	2	1.2	84.6	0.73	2	1.2		3.11	1	0.6		3.11	1	0.6	
-0.52	2	1.2	85.8	0.72	2	1.2		3.10	1	0.6		3.10	1	0.6	
-0.51	2	1.2	87.0	0.71	2	1.2		3.09	1	0.6		3.09	1	0.6	
-0.50	2	1.2	88.2	0.70	2	1.2		3.08	1	0.6		3.08	1	0.6	
-0.49	2	1.2	89.4	0.69	2	1.2		3.07	1	0.6		3.07	1	0.6	
-0.48	2	1.2	90.6	0.68	2	1.2		3.06	1	0.6		3.06	1	0.6	
-0.47	2	1.2	91.8	0.67	2	1.2		3.05	1	0.6		3.05	1	0.6	
-0.46	2	1.2	93.0	0.66	2	1.2		3.04	1	0.6		3.04	1	0.6	
-0.45	2	1.2	94.2	0.65	2	1.2		3.03	1	0.6		3.03	1	0.6	
-0.44	2	1.2	95.4	0.64	2	1.2		3.02	1	0.6		3.02	1	0.6	
-0.43	2	1.2	96.6	0.63	2	1.2		3.01	1	0.6		3.01	1	0.6	
-0.42	2	1.2	97.8	0.62	2	1.2		3.00	1	0.6		3.00	1	0.6	
-0.41	2	1.2	99.0	0.61	2	1.2		2.99	1	0.6		2.99	1	0.6	
-0.40	2	1.2	100.0	0.60	2	1.2		2.98	1	0.6		2.98	1	0.6	
-0.39	2	1.2		0.59	2	1.2		2.97	1	0.6		2.97	1	0.6	
-0.38	2	1.2		0.58	2	1.2		2.96	1	0.6		2.96	1	0.6	
-0.37	2	1.2		0.57	2	1.2		2.95	1	0.6		2.95	1	0.6	
-0.36	2	1.2		0.56	2	1.2		2.94	1	0.6		2.94	1	0.6	
-0.35	2	1.2		0.55	2	1.2		2.93	1	0.6		2.93	1	0.6	
-0.34	2	1.2		0.54	2	1.2		2.92	1	0.6		2.92	1	0.6	
-0.33	2	1.2		0.53	2	1.2		2.91	1	0.6		2.91	1	0.6	
-0.32	2	1.2		0.52	2	1.2		2.90	1	0.6		2.90	1	0.6	
-0.31	2	1.2		0.51	2	1.2		2.89	1	0.6		2.89	1	0.6	
-0.30	2	1.2		0.50	2	1.2		2.88	1	0.6		2.88	1	0.6	
-0.29	2														



## UNIVARIATE

VARIABLE=FD2

## MIMENTS

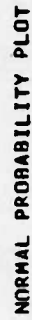
QUANTILES(DEF=4)

## EXTREMES

[illegible]

MISSING VALUE	2
2 COUNT/NORS	1.13

## BOXPLOT



G-79

\* MAY REPRESENT UP TO 3 COUNTS



UNIVARIATE

VARIABLE=FD2

FREQUENCY TABLE

VALUE	COUNT	PERCENTS CELL	CUM	VALUE	COUNT	PERCENTS CELL	CUM	VALUE	COUNT	PERCENTS CELL	CUM	VALUE	COUNT	PERCENTS CELL	CUM	VALUE	COUNT	PERCENTS CELL	CUM
0	112	0.6	64.0	3.59	1	0.6	73.1	7.14	1	0.6	83.4	7.14	1	0.6	92.6	7.14	1	0.6	92.6
0.48	1	0.6	64.6	3.67	1	0.6	73.7	7.16	1	0.6	84.0	7.16	1	0.6	93.7	7.16	1	0.6	93.7
0.53	1	0.6	65.1	3.74	1	0.6	74.3	7.18	1	0.6	84.6	7.18	1	0.6	94.3	7.18	1	0.6	94.3
0.86	1	0.6	65.7	3.8	1	0.6	74.9	7.2	1	0.6	85.1	7.2	1	0.6	94.9	7.2	1	0.6	94.9
2.17	1	0.6	66.3	3.85	1	0.6	75.4	7.22	1	0.6	85.7	7.22	1	0.6	95.4	7.22	1	0.6	95.4
2.76	1	0.6	66.9	4.34	1	0.6	76.0	7.24	1	0.6	86.3	7.24	1	0.6	96.0	7.24	1	0.6	96.0
2.77	1	0.6	67.4	4.61	1	0.6	76.6	7.26	1	0.6	86.9	7.26	1	0.6	96.6	7.26	1	0.6	96.6
3.07	1	0.6	68.0	4.98	1	1.1	77.1	7.28	1	0.6	87.4	7.28	1	0.6	97.1	7.28	1	0.6	97.1
3.22	1	0.6	68.6	5.04	1	0.6	77.7	7.3	1	0.6	88.0	7.3	1	0.6	97.7	7.3	1	0.6	97.7
3.34	1	0.6	69.1	5.16	1	0.6	78.3	7.32	1	0.6	88.6	7.32	1	0.6	98.3	7.32	1	0.6	98.3
3.45	1	0.6	69.7	5.18	1	0.6	78.9	7.34	1	0.6	89.1	7.34	1	0.6	98.9	7.34	1	0.6	98.9
3.47	1	0.6	70.3	5.24	1	0.6	79.4	7.36	1	0.6	89.7	7.36	1	0.6	99.4	7.36	1	0.6	99.4
3.48	1	0.6	70.9	5.3	1	0.6	80.0	7.38	1	0.6	90.3	7.38	1	0.6	99.9	7.38	1	0.6	99.9
3.52	1	0.6	71.4	5.32	2	1.1	81.1	7.4	1	0.6	90.9	7.4	1	0.6	100.0	7.4	1	0.6	100.0
		0.6	72.0				82.9	7.42	1	0.6	91.5	7.42	1	0.6					
		0.6	72.6					7.44	1	0.6	92.0	7.44	1	0.6					



ENGINE BV-711

17:41 MONDAY, JUNE 4, 1984 27

UNIVARIATE

VARIABLE=FD13

MOMENTS

QUANTILES(DEF=4)

EXTREMES

N	175	SUM WGTs	175	100% MAX	1486.96	99%	1278.76	HIGHEST	894.05
MEAN	227.099	SUM	39742.3	75% Q3	345.75	95%	715.548	LOWEST	-1049.29
STD DEV	278.06	VARIANCE	77317.3	50% MED	194.76	90%	527.456		-212.85
SKEWNESS	0.751885	KURTOSIS	5.10011	25% Q1	45.32	10%	-45.178		-157.05
USS	2378629	CSS	13453207	0% MIN	-1049.29	5%	-96.988		-136.63
CV	122.44	STD MEAN	21.0193	RANGE	2536.25	1%	-413.596		-128.35
TIME=0	10.8043	PROB>T	0.0001	MODE	300.43				
SGN-RANK	6491.2	PRUB>T	0.0001		29.69				
NUM	174								

MISSING VALUE

3

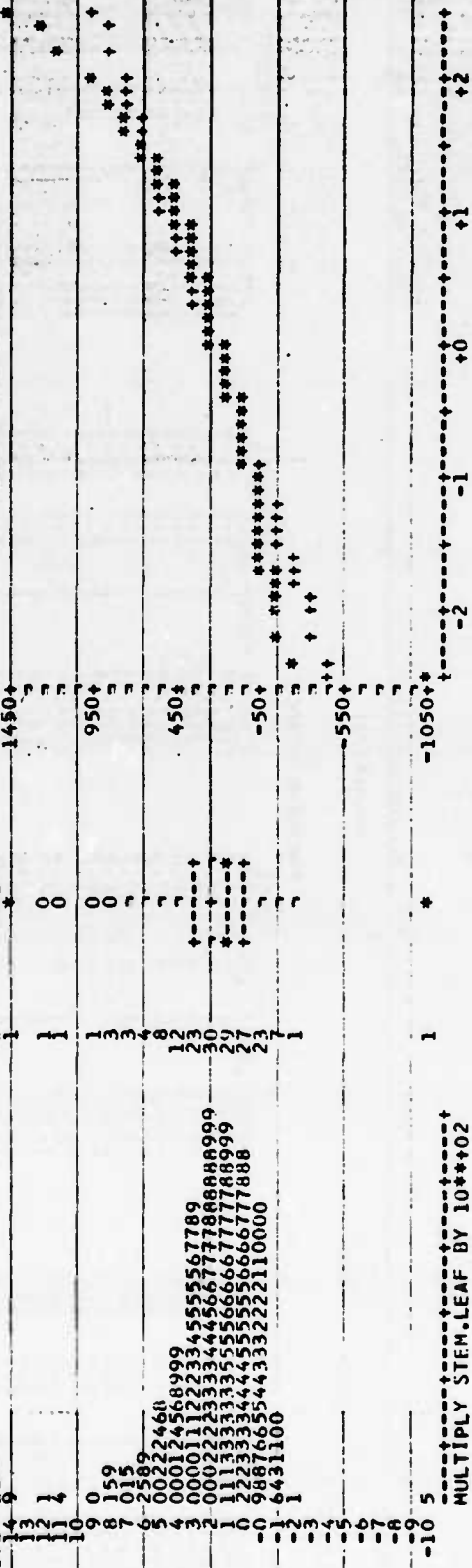
% COUNT/NOBS

1.13

BOXPLOT

NORMAL PROBABILITY PLOT

STEM LEAF



MULTIPLY STEM LEAF BY 10\*\*02

F



17141 MONDAY, JUNE 4, 1984 28

ENGINE RV-717

UNIVARIATE

VARIABLE=FD13

FREQUENCY TABLE

VALUE	COUNT	PERCENTS CELL	CUM	VALUE	COUNT	PERCENTS CELL	CUM	VALUE	COUNT	PERCENTS CELL	CUM	VALUE	COUNT	PERCENTS CELL	CUM
-1049.29	1	0.6	0.6	199.02	1	0.6	51.4	352.36	1	0.6	77.1	352.36	1	0.6	77.1
-1217.85	1	0.6	1.2	192.67	1	0.6	52.0	353.03	1	0.6	77.7	353.03	1	0.6	77.7
-1156.53	1	0.6	1.8	227.89	1	0.6	52.6	353.67	1	0.6	78.3	353.67	1	0.6	78.3
-1128.35	1	0.6	2.4	227.89	1	0.6	53.2	354.31	1	0.6	78.9	354.31	1	0.6	78.9
-1111.11	1	0.6	3.0	227.89	1	0.6	53.8	354.95	1	0.6	79.5	354.95	1	0.6	79.5
-105.44	1	0.6	3.6	227.89	1	0.6	54.4	355.59	1	0.6	80.1	355.59	1	0.6	80.1
-81.04	1	0.6	4.2	227.89	1	0.6	55.0	356.23	1	0.6	80.7	356.23	1	0.6	80.7
-78.04	1	0.6	4.8	227.89	1	0.6	55.6	356.87	1	0.6	81.3	356.87	1	0.6	81.3
-60.47	1	0.6	5.4	227.89	1	0.6	56.2	357.51	1	0.6	81.9	357.51	1	0.6	81.9
-56.47	1	0.6	6.0	227.89	1	0.6	56.8	358.15	1	0.6	82.5	358.15	1	0.6	82.5
-50.07	1	0.6	6.6	227.89	1	0.6	57.4	358.79	1	0.6	83.1	358.79	1	0.6	83.1
-44.91	1	0.6	7.2	227.89	1	0.6	58.0	359.43	1	0.6	83.7	359.43	1	0.6	83.7
-33.20	1	0.6	7.8	227.89	1	0.6	58.6	360.07	1	0.6	84.3	360.07	1	0.6	84.3
-32.70	1	0.6	8.4	227.89	1	0.6	59.2	360.71	1	0.6	84.9	360.71	1	0.6	84.9
-20.19	1	0.6	9.0	227.89	1	0.6	59.8	361.35	1	0.6	85.5	361.35	1	0.6	85.5
-16.47	1	0.6	9.6	227.89	1	0.6	60.4	361.99	1	0.6	86.1	361.99	1	0.6	86.1
-14.05	1	0.6	10.2	227.89	1	0.6	61.0	362.63	1	0.6	86.7	362.63	1	0.6	86.7
-4.00	1	0.6	10.8	227.89	1	0.6	61.6	363.27	1	0.6	87.3	363.27	1	0.6	87.3
0.00	1	0.6	11.4	227.89	1	0.6	62.2	363.91	1	0.6	87.9	363.91	1	0.6	87.9
17.00	1	0.6	12.0	227.89	1	0.6	62.8	364.55	1	0.6	88.5	364.55	1	0.6	88.5
24.00	1	0.6	12.6	227.89	1	0.6	63.4	365.19	1	0.6	89.1	365.19	1	0.6	89.1
26.00	1	0.6	13.2	227.89	1	0.6	64.0	365.83	1	0.6	89.7	365.83	1	0.6	89.7
26.00	1	0.6	13.8	227.89	1	0.6	64.6	366.47	1	0.6	90.3	366.47	1	0.6	90.3
26.00	1	0.6	14.4	227.89	1	0.6	65.2	367.11	1	0.6	90.9	367.11	1	0.6	90.9
26.00	1	0.6	15.0	227.89	1	0.6	65.8	367.75	1	0.6	91.5	367.75	1	0.6	91.5
26.00	1	0.6	15.6	227.89	1	0.6	66.4	368.39	1	0.6	92.1	368.39	1	0.6	92.1
26.00	1	0.6	16.2	227.89	1	0.6	67.0	369.03	1	0.6	92.7	369.03	1	0.6	92.7
26.00	1	0.6	16.8	227.89	1	0.6	67.6	369.67	1	0.6	93.3	369.67	1	0.6	93.3
26.00	1	0.6	17.4	227.89	1	0.6	68.2	370.31	1	0.6	93.9	370.31	1	0.6	93.9
26.00	1	0.6	18.0	227.89	1	0.6	68.8	370.95	1	0.6	94.5	370.95	1	0.6	94.5
26.00	1	0.6	18.6	227.89	1	0.6	69.4	371.59	1	0.6	95.1	371.59	1	0.6	95.1
26.00	1	0.6	19.2	227.89	1	0.6	70.0	372.23	1	0.6	95.7	372.23	1	0.6	95.7
26.00	1	0.6	19.8	227.89	1	0.6	70.6	372.87	1	0.6	96.3	372.87	1	0.6	96.3
26.00	1	0.6	20.4	227.89	1	0.6	71.2	373.51	1	0.6	96.9	373.51	1	0.6	96.9
26.00	1	0.6	21.0	227.89	1	0.6	71.8	374.15	1	0.6	97.5	374.15	1	0.6	97.5
26.00	1	0.6	21.6	227.89	1	0.6	72.4	374.79	1	0.6	98.1	374.79	1	0.6	98.1
26.00	1	0.6	22.2	227.89	1	0.6	73.0	375.43	1	0.6	98.7	375.43	1	0.6	98.7
26.00	1	0.6	22.8	227.89	1	0.6	73.6	376.07	1	0.6	99.3	376.07	1	0.6	99.3
26.00	1	0.6	23.4	227.89	1	0.6	74.2	376.71	1	0.6	99.9	376.71	1	0.6	99.9
26.00	1	0.6	24.0	227.89	1	0.6	74.8	377.35	1	0.6	100.0	377.35	1	0.6	100.0



UNIVARIATE

VARIABLE=ZNI

MOMENTS

QUANTILES(DEF=4)

EXTREMES

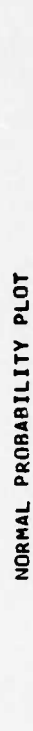
MEAN	175	SUM WGT	175	100% MAX	3.47	99%	3.08999	LOWEST	HIGHEST
STD DEV	-0.571866	SUM	-100.08	75% Q3	-0.22	95%	0.652	-2.09	1.04
SKEWNESS	0.777656	VARIANCE	0.604749	50% MED	-0.61	90%	0.4	-1.98	1.08
KURTOSIS	1.37243	KURTOSIS	5.39103	25% Q1	-1.04	10%	-1.506	-1.92	1.09
CV	162.441	CSS	105.226	0% MIN	-2.09	5%	-1.722	-1.92	2.97
T-MEAN=0	-135.941	STD MEAN	0.058753	RANGE	5.56	1%	-2.0064	-1.85	3.47
SGM-RANK	-972839	PROB>T=	0.0001	Q3-Q1	0.82				
NUM = 0	-5778.5	PROB>S=	0.0001	MODE	-0.88				

MISSING VALUE COUNT

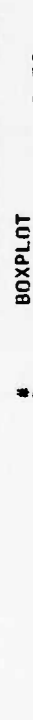
3

% COUNT/NOBS 1.13

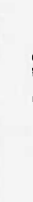
NORMAL PROBABILITY PLOT



BAR CHART



BOXPLOT



G-83

FREQUENCY TABLE

VALUE	COUNT	PERCENTS CELL	PERCENTS CUM	VALUE	COUNT	PERCENTS CELL	PERCENTS CUM	VALUE	COUNT	PERCENTS CELL	PERCENTS CUM
-2.09	1	0.6	0.6	-0.74	1	0.6	28.0	-0.74	1	0.6	42.0
-1.92	1	0.6	1.2	-0.71	1	0.6	29.1	-0.71	1	0.6	43.4
-1.85	1	0.6	1.8	-0.67	1	0.6	29.7	-0.67	1	0.6	44.0
-1.73	1	0.6	2.4	-0.64	1	0.6	30.3	-0.64	1	0.6	44.6
-1.68	1	0.6	3.0	-0.62	1	0.6	30.9	-0.62	1	0.6	45.2
-1.61	1	0.6	3.6	-0.61	1	0.6	31.5	-0.61	1	0.6	45.8
-1.54	1	0.6	4.2	-0.59	1	0.6	32.1	-0.59	1	0.6	46.4
-1.53	1	0.6	4.8	-0.57	1	0.6	32.7	-0.57	1	0.6	47.0
-1.49	1	0.6	5.4	-0.55	1	0.6	33.3	-0.55	1	0.6	47.6
-1.46	1	0.6	6.0	-0.53	1	0.6	33.9	-0.53	1	0.6	48.2
-1.44	1	0.6	6.6	-0.52	1	0.6	34.5	-0.52	1	0.6	48.8
-1.39	1	0.6	7.2	-0.51	1	0.6	35.1	-0.51	1	0.6	49.4



ENGINE BV-71T

17:41 MONDAY, JUNE 4, 1984 30

## UNIVARIATE

VARIABLE=ZNI

## FREQUENCY TABLE (CONT.)

VALUE	COUNT	PERCENTS CELL	CUM	VALUE	COUNT	PERCENTS CELL	CUM	VALUE	COUNT	PERCENTS CELL	CUM
-0.5	1	0.6	58.9	-0.02	1	0.6	81.7	0.43	1	0.6	92.0
-0.49	1	0.6	60.6	-0.01	1	0.6	82.3	0.51	1	0.6	93.1
-0.48	1	0.6	61.7	0	1	0.6	83.4	0.57	1	0.6	93.7
-0.47	1	0.6	62.9	0.01	1	0.6	85.1	0.61	1	0.6	94.3
-0.46	1	0.6	63.4	0.02	1	0.6	85.7	0.62	1	0.6	94.9
-0.45	1	0.6	64.6	0.06	3	0.6	86.3	0.63	1	0.6	95.4
-0.44	1	0.6	65.1	0.09	1	0.6	86.9	0.74	1	0.6	96.0
-0.43	1	0.6	66.3	0.11	1	0.6	87.4	0.76	1	0.6	96.6
-0.39	1	0.6	67.0	0.24	2	0.6	89.1	0.89	1	0.6	97.1
-0.35	1	0.6	68.7	0.29	1	0.6	89.7	1.04	1	0.6	97.7
-0.33	1	0.6	69.7	0.35	1	0.6	90.1	1.08	1	0.6	98.3
-0.29	1	0.6	70.9	0.42	2	0.6	91.4	2.97	1	0.6	99.4
-0.24	2	1.1	81.1					3.47		0.6	100.0



UNIVARIATE

VARIABLE=HRS

MOMENTS

N 173  
MEAN 53.5896  
STD DEV 100.57  
SKEWNESS 9.58145  
CURTOSIS 2336487  
USS 187.667  
CV 7.00867  
T-MEAN=0  
T-STD=7439  
T-RANK 172  
NUM = 0

QUANTILES(DEF=4)

100% MAX 1235  
75% Q3 78  
50% MED 32  
25% Q1 10.5  
0% MIN 0  
RANGE 1235  
Q3-Q1 67.5  
MODE 67.5  
MISSING VALUE COUNT 1  
% COUNT/NORS 2.26

EXTREMES

LOWEST 0  
HIGHEST 172  
175  
175  
1235

BAR CHART

1225+ 625+ 25+ 7 15 49 101

NORMAL PROBABILITY PLOT

1225+ 625+ 25+ -2 -1 0 +1 +2

\* MAY REPRESENT UP TO 3 COUNTS

F



UNIVARIATE

VARIABLE=IRS

FREQUENCY TABLE

VALUE	COUNT	PERCENTS CELL	CUM PERCENTS	VALUE	COUNT	PERCENTS CELL	CUM PERCENTS	VALUE	COUNT	PERCENTS CELL	CUM PERCENTS	VALUE	COUNT	PERCENTS CELL	CUM PERCENTS
0	10	0.6	6.4	60	1	0.6	64.2	90	3	1.7	85.0				
1	10	0.6	12.8	61	1	0.6	64.8	94	1	0.6	86.7				
2	5	0.3	16.5	62	1	0.6	65.4	100	1	0.6	87.3				
3	3	0.2	18.1	63	1	0.6	66.0	101	1	0.6	87.9				
4	3	0.2	19.7	64	1	0.6	66.6	104	1	0.6	88.4				
5	1	0.0	20.3	66	1	0.6	67.2	106	1	0.6	89.0				
6	1	0.0	20.9	68	1	0.6	67.8	107	1	0.6	89.6				
7	1	0.0	21.5	72	1	0.6	68.4	108	1	0.6	90.2				
8	1	0.0	22.1	73	1	0.6	69.0	111	1	0.6	90.8				
9	1	0.0	22.7	75	1	0.6	69.6	113	1	0.6	91.4				
10	1	0.0	23.3	76	1	0.6	70.2	120	1	0.6	92.0				
11	1	0.0	23.9	77	1	0.6	70.8	124	1	0.6	92.6				
12	1	0.0	24.5	78	1	0.6	71.4	126	1	0.6	93.2				
13	1	0.0	25.1	79	1	0.6	72.0	134	1	0.6	93.8				
14	1	0.0	25.7	80	1	0.6	72.6	147	1	0.6	94.4				
15	1	0.0	26.3	82	1	0.6	73.2	160	1	0.6	95.0				
16	1	0.0	26.9	83	1	0.6	73.8	172	1	0.6	95.6				
17	1	0.0	27.5	84	1	0.6	74.4	175	1	0.6	96.2				
18	1	0.0	28.1	85	1	0.6	75.0	1235	1	0.6	96.8				
19	1	0.0	28.7	88	1	0.6	75.6				97.4				
20	1	0.0	29.3				76.2				98.0				



UNIVARIATE

VARIABLE=FE

MOMENTS

	177	SUM	177	100% MAX	95%	99%	856.038	LOWEST	HIGHEST
MEAN	133.661	SUM	23658	75% Q3	181	95%	251.1	4	281
STD DEV	104.661	VARIANCE	10933.1	50% MED	121	90%	208.4	15	299
SKEWNESS	4.50661	KURTOSIS	31.5436	25% Q1	73.4	10%	39.8	18	325
CV	508.6374	CV	19.24222	0% MIN		5%	26.7	19	827
TIMEAU=0	78.288	STD MEAN	7.85931	RANGE	955	1%	12.58	22	959
SGN RANK	17870.5	PRUB>Y	0.0001	Q3-Q1	107.90				
NUM = 0	177	PRUB>S	0.0001	MODE					

NORMAL PROBABILITY PLOT

# BOXPLOT 975+

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G-87

FREQUENCY TABLE

VALUE	COUNT	PERCENTS	CELL	PERCENTS	VALUE	COUNT	PERCENTS	CELL	PERCENTS
4	1	0.6	0.6	0.6	67	1	0.6	0.6	0.6
15	1	0.6	0.6	0.6	68	1	0.6	0.6	0.6
18	1	0.6	0.6	0.6	69	1	0.6	0.6	0.6
19	1	0.6	0.6	0.6	70	1	0.6	0.6	0.6
22	1	0.6	0.6	0.6	71	1	0.6	0.6	0.6
23	1	0.6	0.6	0.6	72	1	0.6	0.6	0.6
24	1	0.6	0.6	0.6	73	1	0.6	0.6	0.6
27	1	0.6	0.6	0.6	74	1	0.6	0.6	0.6
29	1	0.6	0.6	0.6	75	1	0.6	0.6	0.6
33	1	0.6	0.6	0.6	76	1	0.6	0.6	0.6
35	1	0.6	0.6	0.6	77	1	0.6	0.6	0.6
37	1	0.6	0.6	0.6	78	1	0.6	0.6	0.6
39	1	0.6	0.6	0.6	79	1	0.6	0.6	0.6
40	1	0.6	0.6	0.6	80	1	0.6	0.6	0.6
					81	1	0.6	0.6	0.6
					82	1	0.6	0.6	0.6
					83	1	0.6	0.6	0.6
					84	1	0.6	0.6	0.6
					85	1	0.6	0.6	0.6

MULTIPLY STIM. LEAF BY 10\*\*02



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UNIVARIATE

VARIABLE=FE

FREQUENCY TABLE (CONT.)

VALUE	COUNT	PERCENTS CELL	CUM	VALUE	COUNT	PERCENTS CELL	CUM	VALUE	COUNT	PERCENTS CELL	CUM	VALUE	COUNT	PERCENTS CELL	CUM
105	3	1.7	43.5	139	2	0.6	60.5	181	3	1.7	76.3	217	2	1.1	92.1
106	3	1.7	45.2	140	1	0.6	61.0	182	1	0.6	76.8	218	1	0.6	93.1
107	2	0.6	46.9	142	1	0.6	62.1	185	1	0.6	77.4	220	1	0.6	93.7
108	1	0.6	47.5	143	1	0.6	63.3	186	1	0.6	78.0	221	1	0.6	94.3
109	1	0.6	48.1	146	1	0.6	64.0	187	1	0.6	78.6	222	1	0.6	94.9
110	1	0.6	48.7	147	2	0.6	65.0	189	1	0.6	79.2	223	1	0.6	95.5
111	2	0.6	49.3	148	1	0.6	66.2	190	1	0.6	80.8	224	1	0.6	96.1
112	1	0.6	50.0	149	1	0.6	67.8	191	1	0.6	81.4	225	1	0.6	96.7
113	1	0.6	50.6	150	1	0.6	68.9	193	1	0.6	82.0	226	1	0.6	97.3
114	1	0.6	51.2	151	1	0.6	69.9	196	1	0.6	82.6	227	1	0.6	97.9
115	1	0.6	51.8	152	1	0.6	70.2	197	1	0.6	83.2	228	1	0.6	98.5
116	1	0.6	52.4	153	1	0.6	71.3	199	1	0.6	83.8	229	1	0.6	99.1
117	1	0.6	53.0	154	1	0.6	72.3	200	1	0.6	84.4	230	1	0.6	99.7
118	1	0.6	53.6	155	1	0.6	73.4	201	1	0.6	85.0	231	1	0.6	100.0
119	1	0.6	54.2	156	1	0.6	74.0	206	1	0.6	85.6				
120	1	0.6	54.8	157	1	0.6	74.6	207	1	0.6	86.2				
121	1	0.6	55.4	171	1	0.6	75.2	209	1	0.6	86.8				
122	1	0.6	56.0	172	1	0.6	75.8	214	1	0.6	87.4				
123	1	0.6	56.6	175	1	0.6	76.4								



ENGINE 8V-71T 17:57 MONDAY, JUNE 4, 1984 35

UNIVARIATE

VARIABLE=V15

MOMENTS

N 175  
MEAN 156.64  
STD DEV 33.892  
SKEWNESS -0.66312  
CURTOSIS 0.561023  
USS 449270H  
CV 21.584  
TIME AN=0  
SGN RANK 61.7790  
NUM = 0

QUANTILES(DEF=4)

100% MAX 231  
75% Q3 179  
50% MED 161  
25% Q1 140  
0% MIN 53  
RANGE 178  
Q3-Q1 38  
MODE 145

EXTREMES

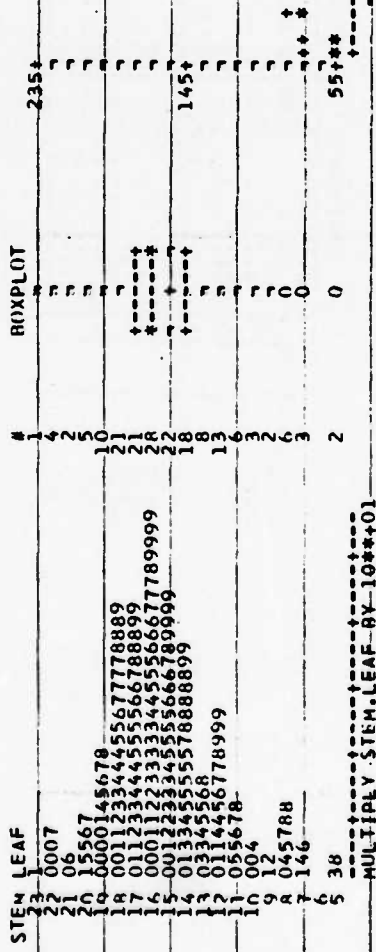
HIGHEST 220  
LOWEST 53  
220  
220  
231  
231

MISSING VALUE

COUNT  
NOBS 1.13

ROX PLOT

NORMAL PROBABILITY PLOT



FREQUENCY TABLE

VALUE	COUNT	PERCENTS	CUM	VALUE	COUNT	PERCENTS	CUM
53	1	0.6	0.6	140	1	0.6	25.7
58	1	0.6	1.2	143	1	0.6	26.3
74	1	0.6	1.8	145	1	0.6	26.9
74	1	0.6	2.4	147	1	0.6	27.5
80	1	0.6	3.0	148	1	0.6	28.1
84	1	0.6	3.6	149	1	0.6	28.7
85	1	0.6	4.2	150	1	0.6	29.3
87	1	0.6	4.8	151	1	0.6	29.9
88	1	0.6	5.4	152	1	0.6	30.5
91	1	0.6	6.0				



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UNIVARIATE

VARIABLE=VIS

FREQUENCY TABLE (CONT.)

VALUE	COUNT	PERCENTS CELL	CUM	VALUE	COUNT	PERCENTS CELL	CUM	VALUE	COUNT	PERCENTS CELL	CUM	VALUE	COUNT	PERCENTS CELL	CUM
153	3	1.7	39.4	167	3	1.7	60.6	181	2	1.1	77.7	197	1	0.6	92.6
154	1	0.6	40.0	168	1	0.6	61.2	182	2	1.1	78.8	198	1	0.6	93.1
155	3	1.7	42.3	169	1	0.6	63.0	183	2	1.1	79.9	201	1	0.6	93.7
156	1	0.6	44.0	170	1	0.6	65.1	184	2	1.1	81.0	205	1	0.6	94.3
157	1	0.6	45.6	171	1	0.6	65.9	185	2	1.1	82.1	207	1	0.6	95.4
158	1	0.6	47.4	172	1	0.6	66.8	186	2	1.1	83.2	210	1	0.6	96.0
159	1	0.6	49.1	173	1	0.6	68.0	187	2	1.1	84.3	216	1	0.6	97.1
160	1	0.6	50.7	174	1	0.6	69.6	188	2	1.1	85.4	230	1	0.6	97.7
161	1	0.6	51.3	175	1	0.6	70.8	189	2	1.1	86.5	237	1	0.6	98.3
162	1	0.6	52.9	176	1	0.6	72.3	190	2	1.1	87.6	251	1	0.6	98.9
163	1	0.6	54.0	177	1	0.6	73.6	191	2	1.1	88.7				
164	1	0.6	55.1	178	1	0.6	75.3	192	2	1.1	89.8				
165	1	0.6	56.8	179	1	0.6	76.3								
166	1	0.6	58.9	180	1	0.6	76.6								



## UNIVARIATE

VARIABLE=TYAN

## MOMENTS

## QUANTILES(UFF=4)

## EXTREMES

	MEAN	STD DEV	SKEWNESS	KURTOSIS	COS	MEAN	RANGE	MODE	100% MAX	99% QUANTILE	LOWEST	HIGHEST
N	177								4.29	4.00139		
SUM	435.05								2.7	3.161		
VARIANCE	0.197942								2.47	2.952		3.61
KURTOSIS	1.01104								1.16	1.904		3.65
COS	34.8377								1.47	1.759		3.78
MEAN	0.00001								2.82	1.5402		4.26
RANGE	0.00001								0.56			
MODE	0.00001								2.5			

## NORMAL PROBABILITY PLOT

## BOXPLOT

#

STEM LEAF

STEM	LEAF	PERCENTS	CELL	VALUE	COUNT	PERCENTS	CELL	VALUE	COUNT	PERCENTS	CELL
42	9	0.6	0.6	1.97	1	0.6	0.6	1.97	1	0.6	0.6
40		0.6	0.6	2.03	1	0.6	0.6	2.03	1	0.6	0.6
38	2	0.6	0.6	2.05	2	0.6	0.6	2.05	2	0.6	0.6
36	158	0.6	0.6	2.07	158	0.6	0.6	2.07	158	0.6	0.6
34	25	0.6	0.6	2.09	25	0.6	0.6	2.09	25	0.6	0.6
32	6	0.6	0.6	2.11	6	0.6	0.6	2.11	6	0.6	0.6
30	1265	0.6	0.6	2.13	1265	0.6	0.6	2.13	1265	0.6	0.6
28	1234667789011566779	0.6	0.6	2.15	1234667789011566779	0.6	0.6	2.15	1234667789011566779	0.6	0.6
26	001123223344478899000111234467788999	0.6	0.6	2.17	001123223344478899000111234467788999	0.6	0.6	2.17	001123223344478899000111234467788999	0.6	0.6
24	112334455667788990011122244555677	0.6	0.6	2.19	112334455667788990011122244555677	0.6	0.6	2.19	112334455667788990011122244555677	0.6	0.6
22	112334455667788990011122244555677	0.6	0.6	2.21	112334455667788990011122244555677	0.6	0.6	2.21	112334455667788990011122244555677	0.6	0.6
20	0234455667788990011234455666778999	0.6	0.6	2.23	0234455667788990011234455666778999	0.6	0.6	2.23	0234455667788990011234455666778999	0.6	0.6
18	125557881456679	0.6	0.6	2.25	125557881456679	0.6	0.6	2.25	125557881456679	0.6	0.6
16	3812459	0.6	0.6	2.27	3812459	0.6	0.6	2.27	3812459	0.6	0.6
14	768	0.6	0.6	2.29	768	0.6	0.6	2.29	768	0.6	0.6

G.91

## FREQUENCY TABLE

MULTIPLY STEM LEAF BY 10\*\*01

VALUE	COUNT	PERCENTS	CELL	VALUE	COUNT	PERCENTS	CELL	VALUE	COUNT	PERCENTS	CELL
1.47	1	0.6	0.6	2.45	1	0.6	0.6	3.43	1	0.6	0.6
1.56	1	0.6	0.6	2.47	1	0.6	0.6	3.45	1	0.6	0.6
1.64	1	0.6	0.6	2.49	1	0.6	0.6	3.47	1	0.6	0.6
1.71	1	0.6	0.6	2.51	1	0.6	0.6	3.49	1	0.6	0.6
1.77	1	0.6	0.6	2.53	1	0.6	0.6	3.51	1	0.6	0.6
1.79	1	0.6	0.6	2.55	1	0.6	0.6	3.53	1	0.6	0.6
1.81	1	0.6	0.6	2.57	1	0.6	0.6	3.55	1	0.6	0.6
1.83	1	0.6	0.6	2.59	1	0.6	0.6	3.57	1	0.6	0.6
1.85	1	0.6	0.6	2.61	1	0.6	0.6	3.59	1	0.6	0.6
1.87	1	0.6	0.6	2.63	1	0.6	0.6	3.61	1	0.6	0.6
1.89	1	0.6	0.6	2.65	1	0.6	0.6	3.63	1	0.6	0.6
1.91	1	0.6	0.6	2.67	1	0.6	0.6	3.65	1	0.6	0.6
1.93	1	0.6	0.6	2.69	1	0.6	0.6	3.67	1	0.6	0.6
1.95	1	0.6	0.6	2.71	1	0.6	0.6	3.69	1	0.6	0.6
1.97	1	0.6	0.6	2.73	1	0.6	0.6	3.71	1	0.6	0.6



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## UNIVARIATE

VARIABLE=TAN

## FREQUENCY TABLE (CONT.)

PERCENTS			PERCENTS			PERCENTS			PERCENTS			PERCENTS		
VALUE	COUNT	CUM	VALUE	COUNT	CUM	VALUE	COUNT	CUM	VALUE	COUNT	CUM	VALUE	COUNT	CUM
2.69	3	74.6	2.84	1	84.2	2.96	2	91.5	3.42	1	96.6	3.42	1	96.6
2.71	1	76.8	2.86	3	87.0	2.97	2	93.2	3.53	1	97.2	3.53	1	97.2
2.75	4	79.1	2.87	1	87.6	3.01	1	93.8	3.61	1	97.7	3.61	1	97.7
2.77	5	81.5	2.89	1	88.1	3.02	1	94.9	3.78	1	98.3	3.78	1	98.3
2.81	1	83.7	2.91	2	89.8	3.15	1	95.5	3.92	1	99.4	3.92	1	99.4
2.82	1	85.6	2.95	1	90.4	3.26	1	96.0	4.26	1	100.0	4.26	1	100.0



## UNIVARIATE

## VARIABLES

## SUMMARY

**QUANTILES(1)FF=4)**

## EXTREMES

[illegible]



## UNIVARIATE

VARIABLE=CONR

## MOMENTS

## QUANTILES (DEF=4)

## EXTREMES

MEAN	1.49	SUM WGT	139	100% MAX	16.1	99%	14.46	LOWEST	HIGHEST
STD DEV	6.5494	SUM	910.4	75% Q3	6.5	95%	11	2.3	11
VARIANCE	42.7973	VARIANCE	5.5632	50% MED	4.5	90%	9.9999		11
KURTOSIS	0.791153	KURTOSIS	0.783866	25% Q1	2.5	10%	4		12
SKWNESS	0.791153	CVS	0.78427	0% MIN	2.5	1%	3.5	3	12
CV	36.0284	STD MEAN	0.200149	RANGE	13.6		2.7		16.1
TIMEAN=0	32.7237	PRUB>T	0.0001	Q3-Q1	3.9				
SGN RAHK	4865	PRUB>TS	0.0001	MODE	3.4				
NUM = 0	139								

MISSING VALUE  
COUNT  
38COUNT/NORS  
21.47

H0X PLOT

#

STEM LEAF

NORMAL PROBABILITY PLOT



## FREQUENCY TABLE

VALUE	COUNT	PERCENTS	CELL	CUM	VALUE	COUNT	PERCENTS	CELL	CUM	VALUE	COUNT	PERCENTS	CELL	CUM
2.5	1	0.7	0.7	48.9	8	7	5.0	76.7	10	10	7.3	94.2	4.3	94.2
3.5	4	2.9	2.2	51.8	8.1	2	1.4	77.4	10.5	1	0.7	95.0	1	95.0
4.5	1	0.7	4.3	56.1	8.2	1	0.7	78.9	11.5	1	0.7	95.7	1	95.7
5.5	1	0.7	10.1	66.2	8.3	1	0.7	80.6	12.5	1	0.7	96.4	1	96.4
6.5	1	0.7	10.7	67.6	8.4	1	0.7	81.3	13.5	1	0.7	97.1	1	97.1
7.5	1	0.7	10.7	68.3	8.5	1	0.7	82.0	14.5	1	0.7	97.8	1	97.8
8.5	1	0.7	10.7	69.0	8.6	1	0.7	82.7	15.5	1	0.7	98.5	1	98.5
9.5	1	0.7	10.7	70.0	8.7	1	0.7	83.4	16.5	1	0.7	99.2	1	99.2
10.5	1	0.7	10.7	71.2	8.8	1	0.7	84.1	17.5	1	0.7	100.0	1	100.0



APPENDIX H  
CONTINENTAL DIESEL ENGINE AVDS-1790  
6TH BATTALION, 32ND ARMORED  
4TH INFANTRY DIVISION, FT. CARSON, CO.

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\* These models were all developed early in the study and are based on a slightly different data collection methodology than that outlined in Table 1.



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ENGINE\_AVD5-1790

UBS	CL2	DET1	DET2	DET3	DET4	FD1	FD2	FDI3	ZN1	HRS	FE	VIS	TAN	TS	COR	GC
1	48.58	530.25	236.27	319.46	1379.66	2.40	0.00	34.88	-0.51	.	123	211	2.58	28	11.5	.
2	48.77	601.96	231.56	344.74	1511.15	3.66	0.00	121.90	-0.40	.	245	256	2.52	28	11.5	.
3	48.77	1098.82	228.34	771.52	2731.46	-0.36	0.00	306.67	0.30	.	233	229	2.89	43	6.3	.
4	48.50	1678.70	208.30	923.87	2731.46	-0.20	0.00	306.67	0.30	.	275	213	2.16	43	6.3	.
5	48.98	2023.36	176.03	723.87	3711.90	-0.61	0.00	121.90	0.25	163	149	96	2.78	43	6.3	.
6	48.29	502.85	176.03	426.96	1071.18	2.46	0.00	603.29	-0.19	.	81	96	2.54	24	13.8	2095
7	48.32	594.86	219.02	481.01	1529.99	1.50	0.00	121.90	-0.24	.	173	93	2.88	24	13.8	2095
8	48.32	2374.68	315.35	718.26	1595.87	1.34	0.00	995.57	-0.32	.	121	73	2.09	24	13.8	2095
9	48.32	1503.32	231.02	1086.53	1529.99	8.01	0.00	121.90	-0.46	.	115	73	2.09	24	13.8	2095
10	48.32	1503.32	231.02	481.01	1529.99	12.31	0.00	121.90	-0.73	.	281	73	2.09	24	13.8	2095
11	48.32	1503.32	231.02	426.96	1529.99	12.31	0.00	121.90	-0.73	.	115	73	2.09	24	13.8	2095
12	48.32	1503.32	231.02	426.96	1529.99	12.31	0.00	121.90	-0.73	.	115	73	2.09	24	13.8	2095
13	48.32	1503.32	231.02	426.96	1529.99	12.31	0.00	121.90	-0.73	.	115	73	2.09	24	13.8	2095
14	48.32	1503.32	231.02	426.96	1529.99	12.31	0.00	121.90	-0.73	.	115	73	2.09	24	13.8	2095
15	48.32	1503.32	231.02	426.96	1529.99	12.31	0.00	121.90	-0.73	.	115	73	2.09	24	13.8	2095
16	48.32	1503.32	231.02	426.96	1529.99	12.31	0.00	121.90	-0.73	.	115	73	2.09	24	13.8	2095
17	48.32	1503.32	231.02	426.96	1529.99	12.31	0.00	121.90	-0.73	.	115	73	2.09	24	13.8	2095
18	48.32	1503.32	231.02	426.96	1529.99	12.31	0.00	121.90	-0.73	.	115	73	2.09	24	13.8	2095
19	48.32	1503.32	231.02	426.96	1529.99	12.31	0.00	121.90	-0.73	.	115	73	2.09	24	13.8	2095
20	48.32	1503.32	231.02	426.96	1529.99	12.31	0.00	121.90	-0.73	.	115	73	2.09	24	13.8	2095
21	48.32	1503.32	231.02	426.96	1529.99	12.31	0.00	121.90	-0.73	.	115	73	2.09	24	13.8	2095
22	48.32	1503.32	231.02	426.96	1529.99	12.31	0.00	121.90	-0.73	.	115	73	2.09	24	13.8	2095
23	48.32	1503.32	231.02	426.96	1529.99	12.31	0.00	121.90	-0.73	.	115	73	2.09	24	13.8	2095
24	48.32	1503.32	231.02	426.96	1529.99	12.31	0.00	121.90	-0.73	.	115	73	2.09	24	13.8	2095
25	48.32	1503.32	231.02	426.96	1529.99	12.31	0.00	121.90	-0.73	.	115	73	2.09	24	13.8	2095
26	48.32	1503.32	231.02	426.96	1529.99	12.31	0.00	121.90	-0.73	.	115	73	2.09	24	13.8	2095
27	48.32	1503.32	231.02	426.96	1529.99	12.31	0.00	121.90	-0.73	.	115	73	2.09	24	13.8	2095
28	48.32	1503.32	231.02	426.96	1529.99	12.31	0.00	121.90	-0.73	.	115	73	2.09	24	13.8	2095
29	48.32	1503.32	231.02	426.96	1529.99	12.31	0.00	121.90	-0.73	.	115	73	2.09	24	13.8	2095
30	48.32	1503.32	231.02	426.96	1529.99	12.31	0.00	121.90	-0.73	.	115	73	2.09	24	13.8	2095
31	48.32	1503.32	231.02	426.96	1529.99	12.31	0.00	121.90	-0.73	.	115	73	2.09	24	13.8	2095
32	48.32	1503.32	231.02	426.96	1529.99	12.31	0.00	121.90	-0.73	.	115	73	2.09	24	13.8	2095
33	48.32	1503.32	231.02	426.96	1529.99	12.31	0.00	121.90	-0.73	.	115	73	2.09	24	13.8	2095
34	48.32	1503.32	231.02	426.96	1529.99	12.31	0.00	121.90	-0.73	.	115	73	2.09	24	13.8	2095
35	48.32	1503.32	231.02	426.96	1529.99	12.31	0.00	121.90	-0.73	.	115	73	2.09	24	13.8	2095
36	48.32	1503.32	231.02	426.96	1529.99	12.31	0.00	121.90	-0.73	.	115	73	2.09	24	13.8	2095
37	48.32	1503.32	231.02	426.96	1529.99	12.31	0.00	121.90	-0.73	.	115	73	2.09	24	13.8	2095
38	48.32	1503.32	231.02	426.96	1529.99	12.31	0.00	121.90	-0.73	.	115	73	2.09	24	13.8	2095
39	48.32	1503.32	231.02	426.96	1529.99	12.31	0.00	121.90	-0.73	.	115	73	2.09	24	13.8	2095
40	48.32	1503.32	231.02	426.96	1529.99	12.31	0.00	121.90	-0.73	.	115	73	2.09	24	13.8	2095
41	48.32	1503.32	231.02	426.96	1529.99	12.31	0.00	121.90	-0.73	.	115	73	2.09	24	13.8	2095
42	48.32	1503.32	231.02	426.96	1529.99	12.31	0.00	121.90	-0.73	.	115	73	2.09	24	13.8	2095
43	48.32	1503.32	231.02	426.96	1529.99	12.31	0.00	121.90	-0.73	.	115	73	2.09	24	13.8	2095
44	48.32	1503.32	231.02	426.96	1529.99	12.31	0.00	121.90	-0.73	.	115	73	2.09	24	13.8	2095
45	48.32	1503.32	231.02	426.96	1529.99	12.31	0.00	121.90	-0.73	.	115	73	2.09	24	13.8	2095
46	48.32	1503.32	231.02	426.96	1529.99	12.31	0.00	121.90	-0.73	.	115	73	2.09	24	13.8	2095
47	48.32	1503.32	231.02	426.96	1529.99	12.31	0.00	121.90	-0.73	.	115	73	2.09	24	13.8	2095
48	48.32	1503.32	231.02	426.96	1529.99	12.31	0.00	121.90	-0.73	.	115	73	2.09	24	13.8	2095
49	48.32	1503.32	231.02	426.96	1529.99	12.31	0.00	121.90	-0.73	.	115	73	2.09	24	13.8	2095
50	48.32	1503.32	231.02	426.96	1529.99	12.31	0.00	121.90	-0.73	.	115	73	2.09	24	13.8	2095
51	48.32	1503.32	231.02	426.96	1529.99	12.31	0.00	121.90	-0.73	.	115	73	2.09	24	13.8	2095
52	48.32	1503.32	231.02	426.96	1529.99	12.31	0.00	121.90	-0.73	.	115	73	2.09	24	13.8	2095
53	48.32	1503.32	231.02	426.96	1529.99	12.31	0.00	121.90	-0.73	.	115	73	2.09	24	13.8	2095
54	48.32	1503.32	231.02	426.96	1529.99	12.31	0.00	121.90	-0.73	.	115	73	2.09	24	13.8	2095
55	48.32	1503.32	231.02	426.96	1529.99	12.31	0.00	121.90	-0.73	.	115	73	2.09	24	13.8	2095
56	48.32	1503.32	231.02	426.96	1529.99	12.31	0.00	121.90	-0.73	.	115	73	2.09	24	13.8	2095







## ENGINE AVDS-1790

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URS	CL2	DET1	DET2	DET3	DET4	FD1	FD2	FDI3	7NI	HRS	FE	VIS	TAN	TS	COR	GC
113	22.29	337.13	100.30	273.40	644.41	2.73	0.00	362.79	-0.73	.	229	239	2.47	3.2	8.5	.
114	22.83	51.18	87.09	260.21	554.76	2.19	2.63	328.53	-1.36	.	303	234	2.58	3.6	8.1	.
115	22.75	1879.23	76.31	339.64	666.18	3.07	3.64	433.75	-0.04	.	403	232	2.58	3.6	8.2	.
116	14.28	773.17	220.01	378.64	917.54	0.44	0.00	138.94	-0.38	.	157	217	2.58	3.6	8.2	.
117	14.28	1593.05	265.68	650.09	1840.37	3.72	0.00	205.20	-0.29	.	204	195	2.58	3.6	8.2	.
118	17.85	1087.05	121.71	617.39	1349.51	3.18	0.00	214.49	-0.12	.	168	206	2.58	3.6	8.2	.
119	17.85	1337.15	124.78	614.06	1363.43	1.98	7.25	255.32	-0.81	.	277	211	2.58	3.6	8.2	.
120	17.85	1371.08	8.88	48.06	1363.43	1.98	7.25	255.32	-0.81	.	153	208	2.58	3.6	8.2	.
121	22.35	1505.00	62.91	505.24	124.50	-1.08	0.00	342.97	-1.24	.	189	248	2.58	3.6	8.2	.
122	37.25	.	.	515.19	1531.49	-0.16	0.00	150.60	0.79	.	263	243	2.58	3.6	8.2	.
123	8.66	.	.	.	.	.	.	.	.	.	147	297	2.58	3.6	8.2	.
124	11.14	822.35	233.45	920.44	2554.91	6.49	0.00	1520.28	1.41	.	147	297	2.58	3.6	8.2	.
125	12.54	1002.95	246.51	1016.29	2603.76	7.02	0.00	1444.52	1.20	.	225	280	2.58	3.6	8.2	.
126	22.35	1864.41	370.48	1553.45	3917.90	5.77	0.00	1503.18	1.00	.	225	275	2.58	3.6	8.2	.
127	31.77	1770.97	428.14	1595.63	4026.30	4.32	17.21	1408.88	0.31	.	153	263	2.58	3.6	8.2	.
128	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.



ENGINE AVIUS-1790

2017 MONDAY, JUNE 4, 1984

VARIABLE	N	MEAN	STD DEV	SUM	MINIMUM	MAXIMUM						
CL2	128	21.47609375	16.27118439	2748.9400000	-2.40000000	74.12000000						
DET1	116	1544.60181034	1413.15291373	179173.8100000	-1260.63000000	7321.80000000						
DET2	116	127.79431034	141.88752054	14824.1400000	-120.44000000	537.48000000						
DET3	116	490.02922414	387.35870161	56843.3900000	-287.09000000	1795.67000000						
DET4	116	1395.72025862	995.41270670	161903.5500000	-496.37000000	4026.30000000						
FD1	116	2.98991379	3.70181283	346.8300000	-5.79000000	12.32000000						
FD2	115	2.41643478	4.09494022	277.8900000	0	17.97000000						
FD13	116	395.94629310	399.82516904	45929.7700000	-370.24000000	1525.04000000						
ZN1	115	0.07991504	1.14578135	9.1900000	-2.09000000	4.48000000						
HRS	4	68.00000000	63.78610089	272.0000000	30.00000000	163.00000000						
FE	128	212.48437500	142.9697937	27198.0000000	9.00000000	867.00000000						
VIS	128	258.60937500	89.39157726	33102.0000000	57.00000000	475.00000000						
TAN	128	2.81656250	0.76565698	360.5200000	1.39000000	7.24000000						
TS	128	4.35312500	4.67625830	557.2000000	0.40000000	32.00000000						
CUB	101	8.41089109	3.78478271	849.5000000	3.00000000	26.00000000						
GC	9	12.11111111	10.68228024	109.0000000	1.00000000	25.00000000						
CORRELATION COEFFICIENTS / NUMBER OF OBSERVATIONS												
CL2												
1.00000	GC	DET4	FE	TAN	DET2	HRS	COR	TS	FD1	FD2	ZN1	VIS
	128	116	128	128	116	4	101	128	116	115	115	128
0.11356												
	DET1											
0.11356												
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CORRELATION COEFFICIENTS / NUMBER OF OBSERVATIONS

FDI3

FDI3 GC 0.75748 0.55098 0.53206 0.47517 0.44114 0.41114 0.31658 0.29123 0.16718 0.13644 0.11362 0.03431  
116 116 115 116 116 116 116 116 93 116 116 116

ZNI

ZNI DET1 0.60517 0.58098 0.35670 0.30589 0.21262 0.18385 0.11801 0.10724 0.10319 0.09017 0.08761 0.07908  
115 115 115 115 115 115 115 115 115 114 115 4

HRS

HRS FE 0.82306 0.63576 0.56261 0.53206 0.41527 0.37626 0.22898 0.21419 0.17073 0.14813 0.08607 0.07908  
4 4 4 4 4 4 4 4 4 4 4 4

FE

FE HRS 0.82306 0.63576 0.56261 0.53206 0.41527 0.37626 0.22898 0.21419 0.17073 0.14813 0.08607 0.07908  
128 4 128 116 116 116 115 115 115 101 116 128

VIS

VIS HRS 0.56261 0.48698 0.17425 0.13644 0.13118 0.12064 0.10724 0.10077 0.09362 0.07467 0.06497 0.05459  
128 4 128 116 116 116 115 116 116 128 128 128

TAN

TAN CL2 0.39448 0.36201 0.32383 0.32275 0.24258 0.22898 0.22752 0.16907 0.11285 0.10319 0.07418 0.03431  
128 128 116 101 128 101 116 116 128 115 128 116

2



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CORRELATION COEFFICIENTS / NUMBER OF OBSERVATIONS

TAN

DET1 0.01009  
116  
FD2 0.00972  
115

TS

TS 1.00000 0.67665 0.33491 0.30694 0.29988 0.22833 -0.22272 0.19435 0.17425 0.12556 0.11801 0.11244 -0.09177  
128 4 116 116 128 115 115 128 115 128 115 128 116

COB -0.03391 0.00135  
101 116

COB

COB 1.00000 -0.71144 0.48698 -0.40054 -0.32275 -0.31347 0.21419 0.17737 0.16719 0.08538 0.07826 -0.07688 -0.08947  
101 7 101 93 101 101 4 93 93 101 92 93 93

DET2 -0.05766 -0.03391  
93 101

GC

GC 1.00000 0.91226 0.90221 0.87826 0.75718 0.70759 0.71184 0.67665 0.63705 -0.22374 0.16629 0.11285 -0.06499  
9 9 9 9 9 9 7 9 9 9 9 9 9

DET1 0.04895 0.00000  
9 0

H-7

117

F



4.1) XTMIJN F-SQIAPF IMPROVEMENT FOR DEPENDENT VARIABLE VIS

$\chi^2_{\text{SCIAFF}} = 0.36291527$   $\chi^2(P) = 22.10919062$

STEP 1 VARIATION OF INTERFERENCE

OF	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
1	42923.89070723	42923.89070723	5.37	0.0230
9	630225.3880497	7991.56661006		
11	680249.21951220			
R VALUE	STD ERROR	TYPE II SS	F	PROB>F
705.51577113				
70.8573029	0.36093971	42923.89070723	5.37	0.0230

THE ABOVE MODEL IS THE BEST VARIABLE MODEL FOUND.

STEP 2 VARIABLE CL2 ENTERED

OF	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
2	57444.07615088	28722.03807544	3.63	0.0310
70	62405.1936132	7908.92586533		
RT	625249.21951220			
		TYPE II SS	F	PROB>F
INTERCEPT	215.6312948	22155.02639278	2.80	0.0983
1	4.31414795	14520.18544365	1.84	0.1793
2	-6.4096075			

THE ABOVE MODEL IS THE BEST 2 VARIABLE MODEL FOUND.

STEP 3 VARIABLE CLASS ENTERED

REGRESSION	DF	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
7H	3	71949.73732930	23983.24577643	3.07	0.0324
7H	7H	610298.48218291	7824.35233568		
TOTAL	81	682249.21951220			

INTERCEPT	R VALUE	STD ERROR	TYPE II SS	F	PROB>F
168.50455811		2.11367427	3644.44798138	4.66	0.0340
-6.71992872		3.75157525	18533.17965079	2.37	0.1278
-7.31288502		0.03305155	14508.66117842	1.85	0.1772
-0.04506244					

THE ABOVE MODEL IS THE BEST 3 VARIABLE MODEL FOUND.

STEP 4 VAFIABLE C102 ENTERED

	DF	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
REGRESSION	4	77196.10683212	19299.02670903		
ERROR	77	605053.11268008	7857.83263221	2.46	0.0526
TOTAL	81	682249.21951220			
	R VALUE	STD ERROR	TYPE III SS	F	PROB>F

INTERCEPT	158.55195634	5.30
FL1	7.75485414	2.83
FL2	-8.2299754	1.98
FL22	-0.0465058	0.1638
FLD2	-0.0015639	0.4164
	3.2676080	0.0240
	4.09192041	0.0966
	0.03318354	0.1638
	0.00165562	0.4164
	4168.82470994	5.30
	22234.55151482	2.83
	15529.9939117	1.98
	5246.36950282	0.67

4



STATISTICAL ANALYSIS SYSTEM  
MAXIMUM R-SQUARE IMPROVEMENT FOR DEPENDENT VARIABLE VIS  
C(P) = 19.10078938

STEP 4 CL2 REPLACED BY DET24

	DF	R VALUE	STD ERROR	TYPE II SS	F	PROB>F
REGRESSION	4					
ERROR	77					
TOTAL	81					
INTERCEPT	173.4089616					
CL1	12.7605741	4.3508455	65161.43699180	8.62	0.0044	
CL2	-18.57814231	6.8065957	54630.12693084	7.29	0.0088	
DET24	-0.03743124	0.00334167	41493.43210375	5.49	0.0217	
DET24	0.0001236	0.00004555	38781.95103789	5.13	0.0283	

THE ABOVE MODEL IS THE BEST 4 VARIABLE MODEL FOUND.

C702 ENTERED	R SQUARE = 0.16550139	C(P) = 19.14132175	MEAN SQUARE	F	PROB>F
DE	SUM OF SQUARES	TYPE II SS	F	PROB>F	
REGRESSION	112967.77311567	22593.55462393	3.02	0.0155	
ERROR	569281.44639253	7490.54534727			
TOTAL	682249.21951220				
B VALUE	STD ERROR				
INTERCEPT	165.2932036				0.0084
CL1	21.2800187	7.8568899	54789.0190309	7.31	0.0135
CL2	-32.7658789	12.9418321	47955.06146819	6.40	0.1249
CL3	-0.34542913	0.02427858	18033.98051890	2.41	0.2001
CL4	0.0664085	0.00176705	12513.70912577	1.67	0.1554
CL5	0.0007963	0.00005549	15423.77407784	2.06	

THE ABOVE MODEL IS THE BEST 5 VARIABLE MODEL FOUND.

NOT?? ENTERED		R SQAPE = 0.17135989	C(P) = 20.52400212		
DE	SUM OF SQUARES	MEAN SQUARE	F	PROB>F	
REGRESSION	116910.14911561	19485.02485260	2.58	0.0249	
ERROR	565339.07019658	7537.85427195			
TOTAL	682249.21931220				
R VALUE		STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	151.69174684				
CL1	21.27205559	8.36775272	58365.58273665	7.74	0.0068
CL2	-35.46103693	13.31495422	51897.14742517	6.88	0.0105
DET22	0.0054543	0.00075420	3942.37593594	0.52	0.4718
DET23	-0.05234117	0.03088658	21648.87061300	2.87	0.0943
DET24	0.07513015	0.0415573	15056.03563729	2.00	0.1617
DET24	0.0005274	0.00006695	4677.59502521	0.62	0.4333

STEP 6 DET24 REPLACED BY DET44

DE	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
REGRESSION	122055.51285780	20342.58547630	2.72	0.0190
ERROR	560193.70665439	7466.24942206		
TOTAL	682249.21951220			
R VALUE				
STD ERROR	TYPE II SS	F	PROB>F	
INTERCEPT	56792.59060202	7.60	0.0073	
CL1	50851.08293255	6.81	0.0109	
CL2	11365.55011322	1.52	0.2217	
DET44	19822.95876740	1.32	0.2551	
DET44	20348.19910214	2.72	0.1030	
DET44	13790.35715876	1.85	0.1783	



THE ABOVE MODEL IS THE BEST 6 VARIABLE MODEL FOUND.

STEP 7 VARIABLE DET24 ENTERED

C(P) = 20.273938911

R SQUARE = 0.19274530

PROB>F

F

MEAN SQUARE

SUM OF SQUARES

DF

0.0220

2.52

78785.76110022  
7442.55259204

131500.32770153  
550748.89181066  
682249.21951220

74

0.0057

8.12

60451.07215961

8.31633298

147.91455971

0.1208

7.43

55283.26462246

13.55722445

23.70134378

0.1657

2.46

18333.50066269

0.00136302

-36.67645077

0.0618

1.96

14590.17885592

0.00011559

0.00212950

0.1080

3.60

26785.50890060

0.00104284

0.0001622

0.1236

2.89

19685.70923271

0.00035020

0.08886921

0.1836

1.27

9444.81484573

0.00024371

-0.00027116

THE ABOVE MODEL IS THE BEST 7 VARIABLE MODEL FOUND.

STEP 8 VARIABLE DET23 ENTERED

R SQUARE = 0.1955892

C(P) = 21.93880888

PROB>F

F

MEAN SQUARE

SUM OF SQUARES

DF

0.0355

2.22

16677.48964986  
7518.20962073

133419.91719890  
548829.30231330  
682249.21951220

73

0.0062

7.94

59658.60030525

8.36322515

147.2463160

0.1088

2.64

54930.79293724

13.55722445

23.55887001

0.0607

3.20

19806.39223211

0.00012166

0.00225467

0.1033

3.93

32906.27511699

0.00122436

-0.05948944

0.0149

2.72

20468.87133777

0.00010455

-0.08892065

0.2486

1.35

10168.47235761

0.00024298

-0.00028259

STEP 8 DET24 REPLACED BY DET23

R SQUARE = 0.25177570

C(P) = 15.93314361

PROB>F

F

MEAN SQUARE

SUM OF SQUARES

DF

0.0049

3.07

21471.72220339  
6992.81427240

171773.77762714  
510475.44188505  
682249.21951220

73

0.0026

9.73

68043.35369997

8.09338510

141.27364505

0.0053

8.26

62802.81492829

13.06851089

-30.24626080

0.0103

6.94

27745.29175762

0.00096521

0.16816861

0.1707

1.91

48525.33278585

0.00003486

0.00010499

0.0273

5.07

35465.93491084

0.02971061

-0.06691004

0.0441

4.20

29347.19066512

0.05145627

0.15541334

0.0099

7.02

49071.08728452

0.00046150

-0.00122252

F



MAXIMUM P-SQUARE IMPROVEMENT FOR DEPENDENT VARIABLE VIS

STEP 8 DEFT44 REPLACED BY CIP3

P SQUARE = 0.26144546 C(P) = 14.90011924

REGRESSION	DE	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
INTERCEPT	1	178370.96055672	178370.96055672	3.23	0.0034
DEFT44	73	503878.25895546	6902.44190350		
TOTAL	74	682249.21951220			

THE ABOVE MODEL IS THE BEST 8 VARIABLE MODEL FOUND.

STEP 9 VARIABLE CIP3 ENTERED R SQUARE = 0.28597344 C(P) = 14.27978351

REGRESSION	DE	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
INTERCEPT	1	195105.15838606	195105.15838606	3.20	0.0026
DEFT44	73	487144.06112613	6665.8973786		
TOTAL	74	682249.21951220			

THE ABOVE MODEL IS THE BEST 9 VARIABLE MODEL FOUND.

STEP 10 VARIABLE DEFT44 ENTERED R SQUARE = 0.29681023 C(P) = 15.12208465

REGRESSION	DE	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
INTERCEPT	1	202498.54750117	202498.54750117	3.00	0.0033
DEFT44	73	479750.67102103	6570.837171720		
TOTAL	74	682249.21951220			

THE ABOVE MODEL IS THE BEST 10 VARIABLE MODEL FOUND.

REGRESSION	DE	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
INTERCEPT	1	222539.94428002	222539.94428002	3.29	0.0737
DEFT44	73	17210.63062447	235.898800636	2.55	0.1149
TOTAL	74	51394.43816391		7.61	0.0074



MAXIMUM R-SQUARE IMPROVEMENT FOR DEPENDENT VARIABLE VIS

R SQUARE = 0.30975975 C(P) = 15.73868110

STEP 11 VARIABLE DFT4 ENTERED

DEGRESSION	11	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
ERROR	70	211333.34957390	19212.12268890	2.86	0.0039
TOTAL	81	470912.86993429	6127.3657049		
		682240.21931220			
INTERCEPT	R VALUE	STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	164.32171095	9.81857141	23790.69236300	3.54	0.0642
CL1	18.46414493	16.97457830	18102.72669634	2.69	0.1054
CL2	-27.84507218	0.02893154	8834.80198673	1.31	0.2557
DE14	0.00286744	0.00110710	4467.00997726	0.68	0.4118
DE13	0.00016219	0.00005535	50181.06891684	7.46	0.0080
CL3	-0.11613595	0.03933725	58636.84194145	8.72	0.0043
CL03	1.03033773	0.01547150	25867.02601630	3.85	0.0539
CL02	0.18514035	0.06984336	47264.49714350	7.03	0.0099
CL01	-0.04873204	0.02777855	20703.98626875	3.08	0.0838
CL13	-0.00194745	0.00055805	81927.00957919	12.18	0.0008
DE12	0.00024831	0.00016234	15139.09331627	2.34	0.1306

THE ABOVE MODEL IS THE BEST 11 VARIABLE MODEL FOUND.

STEP 12 VARIABLE CL22 ENTERED R SQUARE = 0.31258767 C(P) = 17.42642492

DEGRESSION	12	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
ERROR	69	213327.50550397	1777.29212550	2.62	0.0062
TOTAL	81	469921.71400622	6795.96686966		
		682240.21951220			
INTERCEPT	R VALUE	STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	174.34808239	10.07754054	20162.47209001	2.97	0.0895
CL1	17.35804528	17.08286772	17457.99726218	2.57	0.1136
CL2	-3.02416784	0.03347862	3541.53801879	0.52	0.4728
CL3	0.03708754	0.06846587	1994.15592807	0.29	0.5898
DE14	0.00286744	0.00111387	45252.13474483	6.66	0.0120
DE13	0.00016219	0.00006335	51088.21767517	7.53	0.0078
CL03	-0.1438782	0.01813151	35786.51601489	5.23	0.0248
CL02	0.18447175	0.02161375	21525.48219487	3.17	0.0795
CL01	-0.04873204	0.01071354	31032.68222266	2.17	0.0362
CL13	-0.00194745	0.00055820	17621.89370786	2.80	0.1117
DE12	0.00024831	0.00017056	6661.69021289	1.88	0.0026
DE11	0.00022140	0.00017056	11551.08761054	1.88	0.1986

THE ABOVE MODEL IS THE BEST 12 VARIABLE MODEL FOUND.



STATISTICAL ANALYSIS SYSTEM

MAXIMUM R-SQUARE IMPROVEMENT FOR DEPENDENT VARIABLE VIS

R SQUARE = 0.31348391 C(P) = 19.34082767

STEP 13 VARIABLE DET34 ENTERED

DE	R VALUE	STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	175.56237573	10.645594127	16444.08810186	2.39	0.1270
CL1	16.4497575	17.74048316	14965.15222237	0.17	0.6851
CL2	-36.1491184	0.03706884	1969.24863129	0.17	0.6851
CL14	-0.01982060	0.0760591	1538.70529023	0.17	0.6851
CL17	-0.0456568	0.0134688	27009.05885519	3.92	0.0517
CL122	0.0024712	0.0010606	33743.88925359	2.90	0.0862
CL13	-0.00015756	0.02480287	15855.18602509	2.90	0.0862
CL103	0.02137379	0.1161642	19678.59966306	4.31	0.0417
CL202	-0.2413318	0.04528057	16475.73471389	2.39	0.1266
CL203	-0.07003125	0.0059605	65256.15524828	9.47	0.0030
CL123	-0.00183465	0.00023081	9069.51388191	1.32	0.2552
CL124	-0.00026485	0.00006025	546.64800866	0.08	0.7790
CL134	-0.00001697	0.00006025	546.64800866	0.08	0.7790

STEP 13 CL22 REPLACED BY CL11

STEP 13 CL22 REPLACED BY CL11

DE	R VALUE	STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	175.56237573	10.645594127	16444.08810186	2.39	0.1270
CL1	16.4497575	17.74048316	14965.15222237	0.17	0.6851
CL2	-36.1491184	0.03706884	1969.24863129	0.17	0.6851
CL14	-0.01982060	0.0760591	1538.70529023	0.17	0.6851
CL17	-0.0456568	0.0134688	27009.05885519	3.92	0.0517
CL122	0.0024712	0.0010606	33743.88925359	2.90	0.0862
CL13	-0.00015756	0.02480287	15855.18602509	2.90	0.0862
CL103	0.02137379	0.1161642	19678.59966306	4.31	0.0417
CL202	-0.2413318	0.04528057	16475.73471389	2.39	0.1266
CL203	-0.07003125	0.0059605	65256.15524828	9.47	0.0030
CL123	-0.00183465	0.00023081	9069.51388191	1.32	0.2552
CL124	-0.00026485	0.00006025	546.64800866	0.08	0.7790
CL134	-0.00001697	0.00006025	546.64800866	0.08	0.7790

THE ABOVE MODEL IS THE BEST 13 VARIABLE MODEL FOUND.

11

B



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STATISTICAL ANALYSIS SYSTEM  
MAXIMUM R-SQUARE IMPROVEMENT FOR DEPENDENT VARIABLE VIS

STEP 14 VARIABLE DET14 ENTERED

F SQUARE = 0.31450938 C(P) = 21.23127601

REGRESSION	DF	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
INTERCEPT	14	214573.78109135	15326.6986981	2.20	0.0168
DET14	67	247675.43841484	3681.575281269		
TOTAL	81	682249.21951220			
REGRESSION	DF	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
INTERCEPT	170.50391155				
CL1	13.84741307	12.683802335	845.030526852	1.21	0.2754
CL2	-21.34864998	20.41280543	7634.9298786	1.09	0.2994
DET14	-0.02333118	0.04371443	1988.35334392	0.28	0.5953
CL11	0.01265414	0.02648456	1603.10921673	0.23	0.6333
DET12	0.00281146	0.000149521	24547.61184791	3.52	0.0651
DET13	0.00327750	0.00011162	24122.1486987	3.46	0.0674
DET14	0.0000673	0.00002275	610.56736702	0.09	0.7683
CL12	-0.15095922	0.07617551	27425.76132122	3.93	0.0516
CL13	0.0205123	0.02608110	18125.77598868	2.60	0.1116
CL21	0.2531814	0.12888870	24876.48523092	3.54	0.0634
CL22	-0.07318169	0.04728438	53377.36797276	2.20	0.1424
DET12	-0.00075916	0.00003323	53702.52946268	7.29	0.0072
DET13	-0.0002108	0.00002933	3986.39345356	0.57	0.4519
DET14	-0.0000581	0.00000830	1384.91501780	0.20	0.6574

THE ABOVE MODEL IS THE BEST 14 VARIABLE MODEL FOUND.

STEP 15 VARIABLE DET13 ENTERED

F SQUARE = 0.31570784 C(P) = 23.10324414

REGRESSION	DF	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
INTERCEPT	15	215391.42847080	14359.42856472	2.03	0.0258
DET13	66	246857.79104150	3740.269457		
TOTAL	81	682249.21951220			
REGRESSION	DF	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
INTERCEPT	174.24505541				
CL1	13.84741307	12.683802335	845.030526852	1.09	0.2994
CL2	-21.34864998	20.41280543	7634.9298786	1.02	0.3148
DET14	-0.02333118	0.04371443	1988.35334392	0.28	0.5953
CL11	0.01265414	0.02648456	1603.10921673	0.23	0.6333
DET12	0.00281146	0.000149521	24547.61184791	3.52	0.0651
DET13	0.00327750	0.00011162	24122.1486987	3.46	0.0674
DET14	0.0000673	0.00002275	610.56736702	0.09	0.7683
CL12	-0.15095922	0.07617551	27425.76132122	3.93	0.0516
CL13	0.0205123	0.02608110	18125.77598868	2.60	0.1116
CL21	0.2531814	0.12888870	24876.48523092	3.54	0.0634
CL22	-0.07318169	0.04728438	53377.36797276	2.20	0.1424
DET12	-0.00075916	0.00003323	53702.52946268	7.29	0.0072
DET13	-0.0002108	0.00002933	3986.39345356	0.57	0.4519
DET14	-0.0000581	0.00000830	1384.91501780	0.20	0.6574

THE ABOVE MODEL IS THE BEST 15 VARIABLE MODEL FOUND.



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STATISTICAL ANALYSIS SYSTEM  
MAXIMUM P-SQUARE IMPROVEMENT FOR DEPENDENT VARIABLE VIS

STEP 16 VARIABLE DET14 ENTERED

R SQUARE = 0.31659203 C(P) = 25.00878580

REGRESSION	DF	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
16	16	215994.66590626	13499.66661914	1.88	0.0386
ERROR	65	466254.55360593	7173.14697855		
TOTAL	81	682249.21951220			

B VALUE	STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	172.28375576	3525.82441524	0.49	0.4857
CL1	10.92323132	2912.10829107	0.41	0.5263
CL2	-16.42588937	1040.82114477	0.13	0.7043
DE13	0.05625865	3123.78237767	0.44	0.5116
DE14	-0.02037024	2292.57223679	0.32	0.5738
CL11	0.01816361	23328.34291217	3.25	0.0760
CL12	0.00284981	19243.54282087	2.68	0.1063
DE133	0.00025470	2018.71174373	0.28	0.5976
DE144	0.00002131	23956.86343595	3.34	0.0722
CL102	-0.17685447	16043.19871553	2.24	0.1396
CL103	0.05033074	22103.02964858	3.08	0.0833
CL202	0.28662038	14195.40768863	1.98	0.1633
CL204	-0.0855691	603.23743566	0.08	0.7777
DE114	0.00000006	35246.93622870	4.91	0.0301
DE113	-0.0016927	2180.6013021	0.30	0.5833
DE124	0.00316657	2712.11779903	0.38	0.5308
DE114	-0.00000915			

H-STEP 16 CL2 REPLACED BY DET13 F SQUARE = 0.35685522 C(P) = 20.70745108

REGRESSION	DF	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
16	16	243464.19807986	15216.51212899	2.25	0.0113
ERROR	65	439785.02343233	6750.3885281		
TOTAL	81	682249.21951220			

B VALUE	STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	171.39556049	726.27774397	0.13	0.7440
CL1	0.75252846	2605.27120174	0.37	0.5366
DE13	-0.04817152	3841.61804106	0.52	0.4737
DE14	0.02575283	8227.93067337	1.22	0.2717
CL11	0.03291120	5725.74803137	0.85	0.3605
CL122	0.00148858	78499.49043890	11.61	0.0011
DE133	0.00053349	13560.31573111	1.40	0.2412
DE144	-0.00002382	60263.76530362	8.03	0.0040
CL102	-0.2491550	98366.65702962	14.22	0.0003
CL103	0.07373747	29204.37780932	3.98	0.0486
CL202	0.47961164	37802.37610134	5.98	0.0006
CL204	-0.1000270	30381.63646467	4.50	0.0377
DE114	0.00000006	30739.16232130	4.55	0.0366
DE113	-0.00103853	15397.1850367	2.28	0.1338
DE124	0.00034173	8568.76050869	1.27	0.2650
DE114	-0.00027172	34679.08050587	5.14	0.0268



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STATISTICAL ANALYSIS SYSTEM  
MAXIMUM R-SQUARE IMPROVEMENT FOR DEPENDENT VARIABLE VIS

STEP 16 C11 REPLACED BY DET1

R SQUARE = 0.36330795

C(P) = 20.01810312

DE	H VALUE	STD ERROR	TYPE II SS	F	PROB>F
REGRESSION	16	247866.56321914	15491.66020120	2.32	0.0091
ERROR	65	434382.65629305	6682.81009682		
TOTAL	81	682249.21951220			
INTERCEPT	157.6896557	0.00882381	5128.64688325	0.77	0.3842
DET1	-0.00715873	0.004382022	6130.14123677	0.92	0.3413
DET2	-0.13171223	0.06387817	6871.29149966	1.03	0.3143
DET3	-0.06471325	0.01468230	2302.24131390	3.43	0.0680
DET4	0.0046448	0.00154900	3612.67290643	0.92	0.3411
DET5	0.00047172	0.00022477	29434.89982734	4.40	0.0397
DET6	0.0005005	0.00003677	12381.27301558	1.85	0.1782
DET7	-0.25555213	0.07464542	7750.09965476	11.63	0.0011
DET8	0.07886675	0.01858696	120134.94464129	17.98	0.0001
DET9	-0.41224370	0.12483324	172879.71767354	10.91	0.0016
DET10	-0.13325513	0.03340896	106380.41964458	15.92	0.0002
DET11	-0.00704077	0.00001898	30076.25597411	4.50	0.0377
DET12	0.00002985	0.00001253	35441.87658449	5.30	0.0245
DET13	-0.00105433	0.00067340	16382.27518323	2.45	0.1223
DET14	0.0004424	0.00032518	12471.9050724	1.87	0.1766
DET15	-0.0034776	0.00016573	26423.28156707	4.60	0.0398

STEP 16 C11 REPLACED BY C122

R SQUARE = 0.36379937

C(P) = 19.96560374

DE	H VALUE	STD ERROR	TYPE II SS	F	PROB>F
REGRESSION	16	249201.83898401	15512.61493650	2.32	0.0089
ERROR	65	434047.38052819	6677.65200813		
TOTAL	81	682249.21951220			
INTERCEPT	157.2224667	0.00886758	4672.75961256	0.70	0.4059
DET1	-0.00741788	0.004487891	6542.58930796	0.98	0.3259
DET2	-0.14340626	0.06412762	7831.30899131	1.17	0.2828
DET3	-0.06944218	0.0132654	23360.51707876	0.99	0.0659
DET4	0.00153418	0.00153598	6621.4535270	3.50	0.0328
DET5	0.00052677	0.00023508	32416.49613187	4.85	0.0311
DET6	-0.0005775	0.00003786	15538.12833075	2.33	0.1370
DET7	0.26551246	0.07582255	75870.01382004	11.36	0.0013
DET8	-0.26653977	0.07582255	75870.01382004	11.36	0.0013
DET9	-0.13702710	0.01217185	170312.4935006	10.67	0.0014
DET10	-0.13702710	0.01217185	170312.4935006	10.67	0.0014
DET11	-0.0004104	0.00001903	31292.43774013	13.97	0.0004
DET12	-0.0002812	0.00001252	31063.48041898	4.65	0.0347
DET13	-0.01065542	0.00067232	16128.32748898	5.41	0.0231
DET14	0.00031874	0.00031874	16450.00187051	2.46	0.1213
DET15	-0.00324744	0.00017135	19739.9763408	1.46	0.2314
DET16	-0.00324744	0.00017135	19739.9763408	1.46	0.2314



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SYSTEM  
ANALYSIS  
R-SQUARE IMPROVEMENT FOR DEPENDENT VARIABLE VIS  
STEP 16 DET22 REPLACED BY DET2 C(P) = 19.63227656  
R SQUARE = 0.36691953

DE	R VALUE	STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	197.74201044	0.00964484	8641.53060003	1.30	0.2583
DET1	-0.01100338	0.36344152	8756.17426496	0.30	0.582
DET2	-0.41720308	0.16578338	13185.83874420	1.98	0.1637
DET3	-0.23353283	0.05504392	4518.54982634	0.68	0.4126
DET4	-0.05281254	0.0554476	34212.01185688	5.15	0.0166
DET5	-0.13511038	0.00233179	39382.55503377	5.93	0.0177
DET6	-0.00054439	0.0003813	7389.36066184	1.11	0.2952
DET7	-0.00000024	0.0000000	75901.27351311	1.12	0.0012
DET8	-0.26661833	0.02318214	107120.57391434	1.17	0.0014
DET9	-0.08085723	0.01336680	94236.59392652	1.60	0.0003
DET10	-0.44777742	0.04078700	96998.5816164	7.11	0.0096
DET11	-0.15583326	0.00001778	57277.11640775	4.02	0.0061
DET12	-0.00000747	0.00001253	53248.59285459	2.75	0.1018
DET13	-0.00000050	0.00068458	18303.90260010	7.80	0.0069
DET14	-0.00112619	0.00278122	51810.41747818	5.93	0.0176
DET15	-0.00778525	0.00016737	39401.05810717		
DET16	-0.00040755	0.00016737			

STEP 16 DET44 REPLACED BY CID4 R SQUARE = 0.36723156 C(P) = 19.59894169

DE	R VALUE	STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	205.49502345	0.00952116	13302.63953332	2.00	0.1618
DET1	-0.01347477	0.35545167	15902.16123912	2.39	0.1266
DET2	-0.45002184	0.16377244	13122.03456662	1.98	0.1637
DET3	-0.23013334	0.06044116	4038.6871783	0.61	0.4384
DET4	-0.02713070	0.05912731	15826.38002154	2.38	0.1275
DET5	-0.09127287	0.0020464	41776.51881501	6.29	0.0146
DET6	-0.00051325	0.00020464	55147.54762945	6.80	0.0113
DET7	-0.19566548	0.0702824	77372.94430311	11.65	0.0011
DET8	-0.07276224	0.02132807	7612.24645449	1.15	0.2883
DET9	-0.01335745	0.00130532	45457.65435685	6.84	0.0110
DET10	-0.3466745	0.12792259	79557.57687912	11.98	0.0010
DET11	-0.12117550	0.03790785	47481.32579461	7.15	0.0095
DET12	-0.00004911	0.0001795	55059.39882949	8.29	0.0054
DET13	-0.00003770	0.0001239	55598.87148819	9.37	0.0032
DET14	-0.00150886	0.00054984	79617.98589737	16.89	0.0010
DET15	-0.00795699	0.0025878	66490.82891937	10.01	0.0034
DET16	-0.0001162	0.00000849			



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STATISTICAL ANALYSIS SYSTEM  
MAXIMUM R-SQUARE IMPROVEMENT FOR DEPENDENT VARIABLE VIS  
STEP 16 DET4 REPLACED BY C2D4 P SQUARE = 0.37416644 C(P) = 18.85808500

DE F SUM OF SQUARES MEAN SQUARE F PROB>F

REGRESSION 16 255274.76380569 15954.67273811 2.43 0.0062  
Error 65 426974.45570250  
Total 81 682249.21951220

DE F SUM OF SQUARES MEAN SQUARE F PROB>F

INTERCEPT 187.06891649 7598.97345664 1.16 0.2861  
DET1 -0.00884134 13075.88064119 1.99 0.1630  
DET2 -0.01535133 25382.03235802 3.72 0.0589  
DET3 0.10997112 26385.26903809 3.93 0.0589  
DET13 -0.00046984 33021.11098032 5.03 0.0284  
DET12 -0.19466278 47060.24978032 7.16 0.0094  
DET10 -0.04765106 14163.64708077 2.16 0.1468  
DET4 -0.00932261 10300.69158871 1.57 0.2150  
DET5 -0.33866473 49772.74127456 7.58 0.0077  
DET6 -0.04505590 14407.23366390 2.19 0.1434  
DET7 -0.01544552 8769.78701860 1.34 0.2521  
DET11 -0.00004701 45635.84331235 6.95 0.0105  
DET14 -0.00001218 49026.65162700 7.46 0.0081  
DET13 -0.00144354 52652.65335558 8.02 0.0062  
DET12 -0.00072566 51888.87834717 7.90 0.0065  
DET14 -0.00025918 38704.94285634 5.89 0.0180

STEP 16 DET3 REPLACED BY DET22 F SQUARE = 0.39745767 C(P) = 16.36987225

DE F SUM OF SQUARES MEAN SQUARE F PROB>F

REGRESSION 16 271165.18729589 16947.82420599 2.68 0.0027  
Error 65 411086.03221311  
Total 81 682249.21951220

DE F SUM OF SQUARES MEAN SQUARE F PROB>F

INTERCEPT 191.00467309 7650.47681363 1.21 0.2755  
DET1 -0.00834438 15843.82614611 2.51 0.1183  
DET2 -0.01363745 21271.79222812 3.36 0.0712  
DET3 -0.00306802 6973.50643365 1.10 0.2976  
DET4 -0.00022746 27647.04428759 4.37 0.0405  
DET5 -0.14781285 743.18473654 0.12 0.7329  
DET6 -0.01816969 30694.03285146 4.45 0.0311  
DET7 -0.2103947 31294.75927449 4.95 0.0296  
DET8 -0.01905642 573.86129812 0.09 0.7642  
DET9 -0.03124027 28669.14192312 4.53 0.0370  
DET10 -0.00003242 17880.99145137 2.83 0.0975  
DET11 -0.00002675 0.0001227 0.00 0.9479  
DET12 -0.0189912 7184.34264647 1.07 0.3013  
DET13 -0.000715 0.0003456 0.00 0.9503  
DET14 -0.00007686 0.0001259 0.00 0.9373

F



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STATISTICAL ANALYSIS SYSTEM  
MAXIMUM R-SQUARE IMPROVEMENT FOR DEPENDENT VARIABLE VIS

STEP 16 CIND3 REPLACED BY CL2

R SQUARE = 0.41543363 C(P) = 14.44949234

REGRESSION	DF	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
ERROR	16	283429.27128357	17714.32945522	2.89	0.0013
TOTAL	65	309819.94827863	6135.89151121		
	61	682249.21951220			
INTERCEPT	R VALUE	STD ERROR	TYPE II SS	F	PROB>F
CL2	261.28335954	4.64728784	13007.26872422	2.12	0.1502
CL1	-6.76644990	0.00747541	8282.32041040	1.35	0.2496
DE11	-0.00868519	0.24668206	2193.66695149	0.36	0.5520
DE12	-0.16790241	0.08706016	2176.79416984	3.54	0.0642
DE13	0.00348047	0.00147647	34094.89848068	5.56	0.0214
DE14	3.00318014	0.00204767	4747.26419215	0.77	0.3823
DE15	-0.17007284	0.00522163	62208.25785160	10.14	0.0022
DE16	0.02652182	0.00623114	11156.65589296	18.12	0.0001
DE17	0.31433850	0.0081694	63362.43437668	10.43	0.0020
DE18	-0.0342792	0.00338066	2490.13376591	0.41	0.5263
DE19	-0.04560663	0.01110051	103569.85568779	16.88	0.0001
DE20	-0.00003397	0.0007884	19955.69233850	3.25	0.0760
DE21	-0.00002581	0.00031202	28321.19734876	4.62	0.0354
DE22	-0.00178123	0.00055827	62462.64229846	10.18	0.0022
DE23	-0.00302120	0.0028716	34.08081701	0.01	0.9408
DE24	-0.00004410	0.00010735	1035.55404481	0.17	0.6826

STEP 16 DE12 REPLACED BY CL11 R SQUARE = 0.42511143 C(P) = 13.41560929

REGRESSION	DF	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
ERROR	16	280031.93799034	18126.99612443	3.00	0.0009
TOTAL	65	302217.28132185	6034.11202341		
	61	682249.21951220			
INTERCEPT	R VALUE	STD ERROR	TYPE II SS	F	PROB>F
CL2	249.57066886	4.05636394	15418.67278115	2.56	0.1148
CL1	-6.48416003	0.00737060	4701.09144219	0.78	0.3807
DE11	-0.00666573	0.05332646	8796.33365827	1.46	0.2317
DE12	-0.02023766	0.19098298	67.75749589	0.01	0.9159
DE13	0.00316545	0.00147690	27719.36859096	4.59	0.0358
DE14	-0.00320600	0.00204448	6070.20760953	1.01	0.3196
DE15	-0.20622919	0.0512883	87760.35745045	14.54	0.0003
DE16	0.32425629	0.00445752	85842.95933309	14.23	0.0004
DE17	0.34537657	0.09488998	23350.07052267	13.65	0.0005
DE18	-0.0571557	0.00333146	2989.99161172	0.50	0.4840
DE19	-0.04161306	0.01158726	77823.83861095	12.90	0.0006
DE20	-0.00003558	0.0001878	22113.11773324	1.60	0.0375
DE21	-0.00002804	0.0001179	27218.35780364	4.58	0.0375
DE22	-0.00152118	0.0002233	51178.61733228	8.48	0.0048
DE23	-0.00005376	0.00026161	27847.983756	0.03	0.8303
DE24	-0.00007719	0.00011000	2671.45502164	0.44	0.5082



STEP 16 DET34 REPLACED BY CLI

STATISTICAL ANALYSIS SYSTEM  
MAXIMUM R-SQUARE IMPROVEMENT FOR DEPENDENT VARIABLE VIS  
F SQUAPE = 0.43156518 CIP1 = 12.72615189

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REGRESSION	DF	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
ERROR	16	294435.00603309	18402.18787707	3.08	0.0007
TOTAL	81	387814.21347911	5966.37251506		
		687249.21951220			
INTERCEPT	R VALUE	STD ERROR	TYPE II SS	F	PROB>F
CL1	0.46293750	4.01225867	18316.03507365	3.07	0.0845
CL2	0.02905531	0.07118345	14180.84996006	0.70	0.4073
CL3	0.0093169	0.01111221	13850.23177677	2.32	0.1321
CL4	0.10816281	0.01814776	12380.02817186	10.47	0.0019
CL5	0.1297617	0.00126376	62481.81323991	5.43	0.0152
CL6	0.0040899	0.00110216	32228.0203815	13.17	0.0005
CL7	0.0091614	0.0011133	7078.51308438	5.12	0.0270
CL8	0.04280947	0.00874263	80358.9109809	13.17	0.0005
CL9	0.0376827	0.00874263	30528.88612778	13.17	0.0005
CL10	0.2715949	0.02077719	7912.90836188	13.17	0.0005
CL11	0.07900753	0.06860497	82208.1738481	6.71	0.0118
CL12	0.05831693	0.01495628	40012.35461170	8.92	0.0053
CL13	0.0000166	0.00001223	29377.49423632	0.63	0.5130
CL14	0.0002206	0.0000994	49779.70105415		
CL15	0.1014244	0.00951668	2580.91539395		
CL16	0.00115940	0.00024236			

STEP 16 DET33 REPLACED BY CLI P SQUAPE = 0.43472063 CIP1 = 12.38905309

REGRESSION	DF	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
ERROR	16	296587.81340598	18536.73833787	3.12	0.0006
TOTAL	81	385661.40610621	5933.25240163		
		687249.21951220			
INTERCEPT	R VALUE	STD ERROR	TYPE II SS	F	PROB>F
CL1	0.46293750	4.01225867	18316.03507365	3.07	0.0845
CL2	0.02905531	0.07118345	14180.84996006	0.70	0.4073
CL3	0.0093169	0.01111221	13850.23177677	2.32	0.1321
CL4	0.10816281	0.01814776	12380.02817186	10.47	0.0019
CL5	0.1297617	0.00126376	62481.81323991	5.43	0.0152
CL6	0.0040899	0.00110216	32228.0203815	13.17	0.0005
CL7	0.0091614	0.0011133	7078.51308438	5.12	0.0270
CL8	0.04280947	0.00874263	80358.9109809	13.17	0.0005
CL9	0.0376827	0.00874263	30528.88612778	13.17	0.0005
CL10	0.2715949	0.02077719	7912.90836188	13.17	0.0005
CL11	0.07900753	0.06860497	82208.1738481	6.71	0.0118
CL12	0.05831693	0.01495628	40012.35461170	8.92	0.0053
CL13	0.0000166	0.00001223	29377.49423632	0.63	0.5130
CL14	0.0002206	0.0000994	49779.70105415		
CL15	0.1014244	0.00951668	2580.91539395		
CL16	0.00115940	0.00024236			

F



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STEP 16 DET1 REPLACED BY C201

STATISTICAL ANALYSIS SYSTEM

MAXIMUM R-SQUARE IMPROVEMENT FOR DEPENDENT VARIABLE VIS

P SQUARE = 0.43641698 C(P) = 12.20783133

REGRESSION

SUM OF SQUARES MEAN SQUARE

16 297745.14632135

65 384504.07319085

ERROR

81 5915.44727986

TOTAL

R VALUE STD ERROR TYPE II SS

PROB>F

INTERCEPT	16	65	81	3.15	0.0006
1	255.33104443	16.73749347	3504.10336745	0.59	0.4463
2	-12.88204298	28.20333205	1562.17223037	0.26	0.6031
3	16.49323842	0.99378667	1389.21731173	0.32	0.1330
4	0.15184329	0.31191117	3483.50139773	0.67	0.4139
5	-0.26082239	0.01124727	53420.48707918	0.03	0.0038
6	0.00374418	0.0739407	34677.89336286	0.86	0.0183
7	-0.17606660	0.04299147	5563.32836308	0.94	0.3358
8	-0.04136438	0.0131628	69922.60461388	1.82	0.0010
9	0.03528807	0.0005823	24732.53757692	4.18	0.0449
10	-0.00011907	0.12764358	32781.42391133	5.54	0.0216
11	0.32052852	0.07435615	6043.60494516	1.02	0.3159
12	0.07515733	0.01728114	72732.39265431	12.30	0.0008
13	-0.06006413	0.0001186	36950.24318756	6.25	0.0150
14	-0.00002964	0.0000743	62534.90630865	10.57	0.0018
15	0.00302417	0.0004418	36653.15051128	6.20	0.0154
16	-0.00116545	0.00025048	3290.18124970	0.56	0.4385
17	-0.00018681	0.00025048	3290.18124970	0.56	0.4385

R SQUARE = 0.43845231 C(P) = 11.99039632

STEP 16 CL2 REPLACED BY DET11

MAXIMUM R-SQUARE IMPROVEMENT FOR DEPENDENT VARIABLE VIS

P SQUARE = 0.43641698 C(P) = 12.20783133

SUM OF SQUARES MEAN SQUARE

16 290133.74715637

65 383113.47325982

ERROR

81 5894.08479009

TOTAL

R VALUE STD ERROR TYPE II SS

PROB>F

INTERCEPT	16	65	81	3.17	0.0005
1	261.1272372	2.37526388	22069.43565502	3.74	0.0573
2	-4.59626416	0.07284555	17224.78836596	2.92	0.0921
3	0.12408490	0.24293426	3348.50668078	0.57	0.4537
4	-0.18318752	0.00000004	2950.77306572	0.50	0.4818
5	0.00000003	0.00134922	52935.97769253	8.98	0.0039
6	0.00404342	0.07386041	34127.51528923	5.79	0.0190
7	-0.17772802	0.04100298	5221.38857381	0.89	0.3501
8	0.03975523	0.00204295	78917.33913919	13.39	0.0005
9	-0.03348593	0.00053865	5059.00878141	0.86	0.3576
10	0.00045903	0.12773342	31600.08287980	5.36	0.0238
11	-0.29574171	0.07359571	6107.00111998	1.02	0.3173
12	0.07491872	0.01266554	80786.00980458	13.71	0.0004
13	-0.05800070	0.00001775	24632.37196888	4.18	0.0450
14	-0.00302417	0.00000743	62534.90630865	10.57	0.0016
15	0.00302417	0.00000743	62534.90630865	10.57	0.0016
16	-0.00116545	0.00001136	42184.08479009	7.16	0.0094
17	-0.00018681	0.00023822	2710.80122755	0.46	0.5001



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STATISTICAL ANALYSIS SYSTEM

MAXIMUM R-SQUARE IMPROVEMENT FOR DEPENDENT VARIABLE VIS

R SQUARE = 0.44151635 C(P) = 11.66376330

STEP 16 DET24 REPLACED BY DET4

DEPRESSION	DF	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
REGRESS	16	301224.18752879	18826.51172055	3.21	0.0004
ERROR	65	381025.03198340	5861.92358698		
TOTAL	81	682249.21951220			

B VALUE	STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	2.50588090	9795.19888287	1.67	0.2007
CL1	0.03843923	4801.24159999	0.82	0.3688
DET4	0.07214790	17384.93578832	2.97	0.0898
CL11	0.12424922	865.42380975	0.83	0.3656
CL12	0.23274566	3801.50067947	0.65	0.4236
DET22	0.00000004	65090.71542695	11.10	0.0014
CL13	0.00116057	19268.82103510	3.29	0.0744
CL14	0.08176765	5533.89537795	0.95	0.3340
CL15	0.03995715	85303.09395945	14.55	0.0003
CL16	0.00174570	17191.18556611	1.93	0.3044
CL17	0.00054501	16078.85728271	1.13	0.2912
CL18	0.07114332	8073.85572824	13.30	0.0007
CL19	0.01441382	27538.97208671	4.36	0.0407
CL20	0.00001226	67120.90119175	11.46	0.0012
CL21	0.0000744	55823.57627294	9.49	0.0030

STEP 16 DET11 REPLACED BY DET3					
P SQUARE = 0.44266968 C(P) = 11.53985338					
DEPRESSION	DF	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
REGRESS	16	302011.04055425	18875.69003464	3.23	0.0004
ERROR	65	380238.17895795	5849.81813781		
TOTAL	81	682249.21951220			

B VALUE	STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	2.43077561	13827.39563403	2.36	0.1290
CL1	0.12452238	4588.35320493	0.78	0.3791
DET4	0.06146378	7927.72580789	1.19	0.2773
CL11	0.07393382	18865.03808134	3.23	0.0770
CL12	0.24722331	3760.42081114	0.64	0.4256
DET22	0.00102501	67340.02281915	11.51	0.0012
CL13	0.08167774	23421.13044086	4.07	0.0477
CL14	0.04015225	6058.77159520	1.04	0.3126
CL15	0.00872715	30591.50275041	14.73	0.0003
CL16	0.0005507	22067.96708309	5.23	0.0255
CL17	0.14496096	6124.16027020	3.77	0.0564
CL18	0.07047619	30630.25111730	1.05	0.3100
CL19	0.01494732	58315.98300210	14.27	0.0004
CL20	0.00001165	59760.62813155	9.77	0.0024
CL21	0.00004484		10.22	0.0022



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STATISTICAL ANALYSIS SYSTEM  
MAXIMUM R-SQUARE IMPROVEMENT FOR DEPENDENT VARIABLE VIS  
R SQUARE = 0.45138729 CIP1 = 10.60854619

STEP 16 C201 REPLACED BY DET1

DE	R VALUE	STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	310.51716378				
DE T1	-0.36011205	2.88741321	19843.82599278	3.45	0.0679
DE T2	-0.01311547	0.00520616	36545.09127553	6.35	0.0142
DE T3	-0.18878833	0.13091248	11975.22624660	2.08	0.1541
DE T4	-0.08768486	0.05400811	15171.10513183	2.63	0.1094
DE T5	-0.15366694	0.06678021	30503.14932727	5.30	0.0246
DE T6	-0.25725714	0.22379158	7611.22694771	1.32	0.2545
DE T7	-0.00400531	0.00104323	84880.73575560	14.74	0.0003
DE T8	-0.14415895	0.08019218	21885.79398511	3.79	0.0598
DE T9	-0.05182387	0.03654789	11571.92346328	2.01	0.1610
DE T10	-0.02600730	0.00860766	100208.71440913	17.40	0.0001
DE T11	0.25762214	0.13788034	20098.41440913	3.49	0.0682
DE T12	-0.08177880	0.06369373	11938.28682797	2.08	0.1544
DE T13	-0.06007356	0.01473527	95655.52586123	16.61	0.0001
DE T14	-0.00333117	0.00001165	41231.16265967	7.16	0.0094
DE T15	-0.00002740	0.00000809	66004.39045909	11.46	0.0012
DE T16	-0.00770336	0.00047814	73075.5918857	17.69	0.0007

THE ABOVE MODEL IS THE BEST 16 VARIABLE MODEL FOUND.

STEP 17 VARIABLE DE T12 ENTERED

CIP1 = 12.22270167

R SQUARE = 0.45500559

DE	R VALUE	STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	334.42404357				
DE T1	-0.03240684	3.07871142	22312.19970615	3.84	0.0544
DE T2	-0.02014168	0.01198044	16421.06108181	2.83	0.0976
DE T3	-0.24448060	0.15681409	14121.28031339	2.43	0.1239
DE T4	-0.10716346	0.06194573	17386.80510607	2.99	0.0885
DE T5	-0.18192567	0.07985252	30175.25163393	5.19	0.0260
DE T6	-0.34483224	0.26185054	10075.44898977	1.73	0.1926
DE T7	-0.14133033	0.00125773	73042.59010817	12.57	0.0007
DE T8	-0.00445828	0.04195762	16557.76573810	2.85	0.0962
DE T9	-0.05121066	0.04195762	13968.46442870	2.40	0.1239
DE T10	-0.03767723	0.00921085	88769.09969482	17.00	0.0001
DE T11	-0.22817708	0.14565655	14257.38015828	2.45	0.1219
DE T12	-0.11617512	0.07411847	14273.43592366	3.46	0.0682
DE T13	-0.13335780	0.07155900	95655.52586123	16.61	0.0001
DE T14	-0.0002773	0.00004284	2468.58161223	0.42	0.5198
DE T15	-0.00363618	0.00001400	38788.69588501	6.68	0.0121
DE T16	-0.00302878	0.00000839	64230.29456030	11.74	0.0011
DE T17	-0.00497977	0.00060178	60361.09547913	10.39	0.0020



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STATISTICAL ANALYSIS SYSTEM  
MAXIMUM R-SQUARE IMPROVEMENT FOR DEPENDENT VARIABLE VIS

STEP 17 DET1 REPLACED BY C2D1

R SQUARE = 0.45799148

CIP1 = 11.90311749

	DE	SUM OF SQUARES	STD ERROR	TYPE II SS	F	PROB>F
REGRESSION	17	312464.33295228		18380.25487955	3.18	0.0004
ERROR	64	269784.88655592		5777.88885253		
TOTAL	81	582249.21951220				
	R VALUE					
INTERCEPT	306.65012136			19705.16852754	3.41	0.0694
DET1	-5.38981279	2.91639113		10893.71456109	1.89	0.1745
DET2	-0.18716595	0.13623050		15287.08409097	2.65	0.1087
DET3	-0.09141968	0.03620135		27876.50706209	4.48	0.0391
DET4	-0.16231785	0.07689434		7232.54813282	1.25	0.2674
DET5	-0.04025335	0.00117058		76283.04237591	13.20	0.0006
DET6	-0.16748444	0.08316797		23432.93565961	4.06	0.0482
DET7	-0.04982068	0.00454002		8765.03554320	1.32	0.2228
DET8	-0.03582155	0.00886097		95007.60407120	16.44	0.0001
DET9	-0.00051289	0.00028701		18458.18334144	3.19	0.0786
DET10	0.27301218	0.14417121		20863.58349709	3.61	0.0619
DET11	0.08917732	0.07124888		9133.31288161	1.58	0.2127
DET12	-0.05893585	0.01511548		90844.54798806	15.72	0.0002
DET13	-0.00012175	0.00009052		10453.29239803	1.81	0.1834
DET14	-0.00003412	0.00001433		40894.39790507	7.08	0.0099
DET15	-0.00002476	0.00000759		63100.11338881	10.92	0.0018
DET16	-0.00188853	0.00056411		64756.39681427	11.21	0.0014

THE ABOVE MODEL IS THE BEST 17 VARIABLE MODEL FOUND.

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F



MAXIMUM R-SQUARE IMPROVEMENT FOR DEPENDENT VARIABLE TAN  
 F SQUARE = 0.14709560 C(P) = -3.61242946

STEP 1 VARIABLE C11 ENTERED

SUM OF SQUARES									
DF				MEAN SQUARE	F	PROB>F			
REGRESSION	1			7.17231996	13.80	0.0004			
ERROR	90			41.58724553					
TOTAL	91			48.75958649					
TYPE II SS									
INTERCEPT	1			7.17231996	13.80	0.0004			
CL11	2			0.00001863					
THE ABOVE MODEL IS THE BEST 1 VARIABLE MODEL FOUND.									
STEP 2 VARIABLE DE122 ENTERED									
R SQUARE = 0.15248301 C(P) = -2.08230196									
SUM OF SQUARES									
DF				MEAN SQUARE	F	PROB>F			
REGRESSION	2			3.71750390	7.11	0.0015			
ERROR	79			41.32457265					
TOTAL	81			48.75958649					
TYPE II SS									
INTERCEPT	2			4.98987052	9.54	0.0028			
CL11	0			0.00002684	0.50	0.4806			
DE122	0			0.00000178					
THE ABOVE MODEL IS THE BEST 2 VARIABLE MODEL FOUND.									
STEP 3 VARIABLE C201 ENTERED									
R SQUARE = 0.15908607 C(P) = -0.65819957									
SUM OF SQUARES									
DF				MEAN SQUARE	F	PROB>F			
REGRESSION	3			2.58565675	4.92	0.0036			
ERROR	78			41.00261275					
TOTAL	81			48.75958649					
TYPE II SS									
INTERCEPT	3			5.17637952	9.85	0.0024			
CL11	0			0.57120442	1.09	0.3004			
DE122	0			0.32196244	0.61	0.4362			
C201	-0								
STEP 3 CL11 REPLACED BY CL1									
R SQUARE = 0.16541363 C(P) = -1.21006843									
SUM OF SQUARES									
DF				MEAN SQUARE	F	PROB>F			
REGRESSION	3			2.68849971	5.15	0.0028			
ERROR	78			40.69408136					
TOTAL	81			48.75958649					
TYPE II SS									
INTERCEPT	3			2.68849971	5.15	0.0028			
CL11	0			0.52171899					
DE122	0								
C201	0								



MAXIMUM R-SQUARE IMPROVEMENT FOR DEPENDENT VARIABLE TAN

STEP 3 DET22 REPLACED BY DET23

F SQUARE = 0.17175598

C(P) = -1.76322757

DE	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
REGRESSION	8.37474535	2.79158312	5.39	0.0021
ERROR	40.38483113	0.51775425		
TOTAL	48.75958049			

R VALUE	STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	2.12603186			
DET1	0.01782355	5.73013498	11.07	0.0013
DET2	-0.00001963	0.00001225	1.19	0.1426
DET3	-0.00000160	0.00000125	1.83	0.2049

THE ABOVE MODEL IS THE BEST 3 VARIABLE MODEL FOUND.

STEP 4 VARIABLE DET2 ENTERED

F SQUARE = 0.17809931

C(P) = -0.31647245

DE	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
REGRESSION	8.68504752	2.77101188	4.17	0.0041
ERROR	40.07553297	0.52046147		
TOTAL	48.75958049			

R VALUE	STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	2.10973075			
DET1	0.02123748	4.89794975	9.41	0.0030
DET2	-0.00000067	0.00115537	0.59	0.4451
DET3	-0.00002643	0.00001595	2.75	0.1015
DET4	0.00000254	0.00000175	2.11	0.1507

THE ABOVE MODEL IS THE BEST 4 VARIABLE MODEL FOUND.

STEP 5 VARIABLE DET4 ENTERED

F SQUARE = 0.18431198

C(P) = 1.14167814

DE	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
REGRESSION	8.98697491	1.79739498	3.43	0.0076
ERROR	39.77260558	0.52332376		
TOTAL	48.75958049			

R VALUE	STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	1.97754035			
DET1	0.02332298	5.10446551	9.75	0.0025
DET2	-0.00132219	0.37087760	1.04	0.2996
DET3	0.00018306	0.30292739	0.38	0.4491
DET4	-0.00002222	1.73206455	3.31	0.0728
DET5	0.00000286	1.31237944	2.51	0.1174

STEP 5 DET2 REPLACED BY DET24

F SQUARE = 0.18924424

C(P) = 0.71150266

DE	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
REGRESSION	9.22746565	1.84549393	3.55	0.0063
ERROR	39.53211083	0.52015935		

R VALUE	STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	1.85170052			
DET1	0.02294815	6.08764301	11.70	0.0010
DET2	-0.00021843	0.00181084	1.33	0.2518
DET3	-0.00002671	1.97506853	3.80	0.0550
DET4	0.00000255	1.47009746	2.83	0.0968
DET5	-0.00000102	0.81137234	1.56	0.2155



MAXIMUM R-SQUARE IMPROVEMENT FOR DEPENDENT VARIABLE TAN

STEP 5 DET4 REPLACED BY DET4

F SQUARE = 0.19057891

C(P) = 0.59509711

DE	R VALUE	STD ERROR	TYPE II SS	F	PROB>F
REGRESSION	5	0.29254757	1.85050951	3.58	0.0059
ERROR	76	39.46703282	0.51930305		
TOTAL	81	40.7555845			
DE	R VALUE	STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	1.94251855	0.00810557	5.32523194	10.25	0.0020
CL1	0.07549627	0.00000006	0.7588856	1.46	0.2305
DET4	0.00000007	0.00000006	1.49184141	3.84	0.0538
DET2	-0.00000004	0.00000007	1.5122315	2.91	0.0920
DET3	0.00000002	0.00000008	0.87802361	1.69	0.1974
DET4	-0.00000013	0.00000008			

STEP 5 DET23 REPLACED BY DET22

F SQUARE = 0.22412890

C(P) = -2.33102504

DE	R VALUE	STD ERROR	TYPE II SS	F	PROB>F
REGRESSION	5	0.22843113	2.18368623	4.39	0.0015
ERROR	76	37.83114536	0.49777828		
TOTAL	81	40.75558049			
DE	R VALUE	STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	2.13051328	0.00501306	2.14540460	4.31	0.0413
CL1	0.07049754	0.00000007	2.14830671	5.32	0.0170
DET2	0.00000000	0.00000010	2.74810915	5.32	0.0214
DET4	0.00000003	0.00000008	0.86036262	1.73	0.1926
DET3	-0.00000114	0.00000012	2.8002669	5.63	0.0202
DET4	-0.00000043				

THE ABOVE MODEL IS THE BEST 5 VARIABLE MODEL FOUND.

STEP 6 VARIABLE DET23 ENTERED

F SQUARE = 0.23610759

C(P) = -1.37576781

DE	R VALUE	STD ERROR	TYPE II SS	F	PROB>F
REGRESSION	6	0.21250707	1.91875118	3.86	0.0021
ERROR	75	37.24707342	0.49662765		
TOTAL	81	40.75558049			
DE	R VALUE	STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	1.99527585	0.00873936	2.14704661	4.33	0.0410
CL1	0.01817507	0.00000013	2.21995950	4.47	0.0378
DET2	0.00000214	0.00000010	2.98107593	5.96	0.0170
DET4	0.00000024	0.00000015	1.15379249	2.32	0.1317
DET3	-0.00000027	0.00000022	0.58697594	1.18	0.2816
DET4	-0.00000027	0.00000018	3.07701625	6.19	0.0151

STEP 6 CL1 REPLACED BY CL2

F SQUARE = 0.23628805

C(P) = -1.38452967

DE	R VALUE	STD ERROR	TYPE II SS	F	PROB>F
REGRESSION	6	0.21250707	1.91875118	3.87	0.0020
ERROR	75	37.24707342	0.49662765		
TOTAL	81	40.75558049			
DE	R VALUE	STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	1.91767554	0.01751546	2.15284491	4.34	0.0407
CL2	0.03647045	0.00000057	3.0055873	6.05	0.0162
DET2	0.00000024	0.00000010	3.41862237	6.88	0.0105
DET4	0.00000009	0.00000018	1.27411881	2.57	0.1134
DET3	-0.00000027	0.00000027	0.71650485	1.44	0.2334
DET4	-0.00000009	0.00000018	3.83294032	7.72	0.0069

THE ABOVE MODEL IS THE BEST 6 VARIABLE MODEL FOUND.



STEP 7 VARIABLE C202 ENTERED F SQUARE = 0.24230494 C(P) = 0.08371943

DE	MEAN SQUARE	F	PROB>F
REGRESSION	18.4146815	3.38	0.0036
ERROR	30.91449330		
TOTAL	48.7595869		

R VALUE	STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	0.01823477	1.60415825	3.21	0.0771
CL22	0.00001114	1.55657094	3.12	0.0816
CL24	0.00000010	3.5532949	0.80	0.0048
CL26	0.00004116	0.29728170	0.80	0.0048
CL28	-0.00004456	1.55175214	3.11	0.0820
CL30	0.00000038	0.91858354	1.84	0.1791
CL32	-0.00000050	3.80149772	7.61	0.0073

THE ABOVE MODEL IS THE BEST 7 VARIABLE MODEL FOUND.

STEP 8 VARIABLE CL22 ENTERED F SQUARE = 0.25203924 C(P) = 1.23472519

DE	MEAN SQUARE	F	PROB>F
REGRESSION	12.28932757	3.07	0.0048
ERROR	36.4702532		
TOTAL	48.7595869		

R VALUE	STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	0.02521595	1.93716728	3.88	0.0527
CL22	0.00001146	1.47824038	0.95	0.3329
CL24	0.00000030	1.88790952	3.78	0.0558
CL26	0.00007185	4.02156017	8.05	0.0059
CL28	-0.00004328	0.67195306	1.35	0.2499
CL30	0.00000232	1.46033131	2.92	0.0916
CL32	0.00000037	0.87777212	1.76	0.1891
CL34	-0.00000020	4.21398334	8.43	0.0049

STEP 9 C202 REPLACED BY CL02 C(P) = 1.15802692

DE	MEAN SQUARE	F	PROB>F
REGRESSION	12.33220665	3.09	0.0047
ERROR	36.4273784		
TOTAL	48.7595869		

R VALUE	STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	0.02527793	1.97483882	3.96	0.0504
CL22	0.00003765	0.53159426	1.07	0.3054
CL24	0.00001148	1.83803287	1.07	0.3054
CL26	0.00000010	3.8783244	7.77	0.0068
CL28	0.00003112	0.71483214	1.43	0.2352
CL30	-0.00000022	1.30425014	2.61	0.1103
CL32	0.00000028	0.76562760	1.53	0.2193

DE 124 -0.000000573 0.000000202 4.02774305 8.07 0.0058



STEP 8 C203 REPLACED BY DET3 R SQUARE = 0.25865122 (CPI) = 0.65804940

REGRESSION		DF	R	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
TOTAL		73	12.61172506	48.7595845	1.57646563	3.18	0.0038
INTERCEPT		1	1.77935568	0.02735236	2.33801514	4.72	0.0330
C12		0	0.05043451	0.00050536	1.58376856	3.20	0.0779
C123		-0	0.00000000	0.00000000	1.58821585	4.02	0.0488
C122		0	0.00000000	0.00000000	3.01288359	6.08	0.0160
C124		0	0.00000000	0.00000000	4.39026601	8.87	0.0039
C102		0	0.00000000	0.00000000	1.10187234	2.23	0.1401
C121		0	0.00000000	0.00000000	0.36242271	0.73	0.3951
C124		-0	0.00000000	0.00000000	4.68955308	9.47	0.0024

STEP 8 DET23 REPLACED BY DET13 R SQUARE = 0.27218270 (CPI) = -0.52212246

REGRESSION		DF	R	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
TOTAL		73	13.27151425	48.7595845	1.65893928	3.41	0.0022
INTERCEPT		1	1.62740835	0.026334228	2.97213819	6.11	0.0157
C12		0	0.06513406	0.00333526	1.92750784	3.96	0.0502
C123		-0	0.00067555	0.00000000	2.53167658	5.21	0.0254
C122		0	0.00000000	0.00000000	3.68433030	7.59	0.0061
C124		0	0.00000000	0.00000000	4.79722595	9.87	0.0024
C102		0	0.00000000	0.00000000	0.57696085	1.19	0.2796
C121		0	0.00000000	0.00000000	1.02220797	2.10	0.1513
C124		-0	0.00000000	0.00000000	4.98165445	10.25	0.0020

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THE ABOVE MODEL IS THE BEST R VARIABLE MODEL FOUND.

STEP 9 VARIABLE DET23 ENTERED R SQUARE = 0.28081538 (CPI) = 0.72496287

REGRESSION		DF	R	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
TOTAL		72	13.69244419	48.7595845	1.52138224	3.12	0.0032
INTERCEPT		1	1.54775992	0.02994176	3.33241311	6.84	0.0108
C12		0	0.07813571	0.0050794	1.68995629	4.09	0.0470
C123		-0	0.0102671	0.0004464	2.94199665	6.04	0.0164
C122		0	0.00000000	0.00000000	3.75220276	7.70	0.0070
C124		0	0.00000000	0.00000000	5.08772768	10.47	0.0018
C102		0	0.00000000	0.00000000	0.75477257	1.55	0.2172

DET13	0.00000000	0.00000000	1.08071513	2.22	0.1407
DET23	0.00000000	0.00000000	0.42092595	0.86	0.3557
DET24	-0.00000000	0.00000000	4.39908641	11.09	0.0014

F



STEP 9 DET13 REPLACED BY DET11

P SQUARE = 0.28114839

C(P) = 0.69591884

REGRESSION		DF	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
ERROR		72	13.70867761	1.52318640	3.13	0.0032
TOTAL		81	35.05090288	0.48881810		
			48.75958545			
R VALUE		STD ERROR	TYPE II SS		F	PROB>F
INTERCEPT						
CL2	1.55207405	0.02980104	3.3348525		6.85	0.0108
DET3	0.07795823	0.00050121	1.97580359		4.06	0.0477
CL22	-0.00102182	0.00043888	2.84260679		6.04	0.0164
CL23	-0.00107903	0.00000000	1.09895254		2.25	0.1377
DET11	0.00000000	0.00000000	3.74922647		7.70	0.0070
DET12	0.00001145	0.00001133	5.12606123		10.53	0.0018
DET14	0.00000036	0.00000311	0.70911541		1.46	0.2314
CLD3	0.00003907	0.00003155	0.5524128		1.14	0.2895
DET23	0.00000165	0.00000155	5.4550439		11.21	0.0013
DET24	-0.00000715	0.00000313				

THE ABOVE MODEL IS THE BEST 9 VARIABLE MODEL FOUND.

STEP 10 VARIABLE DET14 ENTERED

P SQUARE = 0.28794994

C(P) = 2.10270964

REGRESSION		DF	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
ERROR		10	14.04031830	1.40403183	2.87	0.0046
TOTAL		71	34.71826219	0.48900369		
			48.75958545			
R VALUE		STD ERROR	TYPE II SS		F	PROB>F
INTERCEPT						
CL2	1.548727317	0.03119197	2.50586029		5.12	0.0266
DET3	0.07060983	0.00064510	2.13802027		4.37	0.0401
DET14	0.00031804	0.00038219	0.33164069		0.68	0.4130
CL22	-0.000397230	0.00045856	2.19847355		4.50	0.0375
DET11	0.00000000	0.00000000	0.96264393		1.97	0.1650
DET12	0.00002923	0.00001167	3.06684502		6.27	0.0146
DET14	0.00000029	0.0000014	2.20305102		4.51	0.0373
CLD3	0.00002532	0.00003178	0.60736330		1.24	0.2688
DET23	0.00000313	0.00000337	0.85090054		1.74	0.1914
DET24	-0.00000715	0.00000214	5.46056613		11.17	0.0013

STEP 10 DET11 REPLACED BY DET1

P SQUARE = 0.28796964

C(P) = 2.10099155

REGRESSION		DF	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
ERROR		10	14.04127881	1.40412788	2.87	0.0046
TOTAL		71	34.71830167	0.48899016		
			48.75958545			
R VALUE		STD ERROR	TYPE II SS		F	PROB>F
INTERCEPT						
CL2	1.48295522	0.03127206	2.51232235		5.14	0.0265
DET1	0.07060983	0.00064510	0.96360445		1.97	0.1647
DET14	-0.000135989	0.00064555	2.16968823		4.44	0.0387
DET2	0.00031988	0.00038205	0.33571941		0.69	0.4101
CL22	-0.00007537	0.00045844	2.20397371		4.51	0.0372
DET12	0.00002921	0.00001167	3.06475931		6.27	0.0146
DET14	0.00000029	0.0000014	2.19703425		4.49	0.0375
CLD3	0.00003564	0.00003175	0.61594904		1.26	0.2655
DET23	0.00000311	0.00000337	0.84121796		1.72	0.1939
DET24	-0.00000714	0.00000214	5.45127035		11.15	0.0013

THE ABOVE MODEL IS THE BEST 10 VARIABLE MODEL FOUND.







DEGRESSION		SUM OF SQUARES		MEAN SQUARE		F		PROB>F	
DF									
12		16.00433392		1.33386949		2.81		0.0035	
60		32.75314651		0.54427076					
TOTAL		48.75748049							

R VALUE		STD ERROR		TYPE II SS		F		PROB>F	
DF									
1	INTERCEPT	1.34468558	0.08140215	1.94826482		4.10		0.0466	
1	CL1	-0.16491422	0.15038133	2.86706462		6.04		0.0165	
1	CL2	0.36055666	0.15038133	2.86706462		6.04		0.0165	
1	CL3	-0.00191785	0.00069898	0.00000000		0.00		0.9999	
1	CL4	0.00745052	0.00032671	0.00000000		0.00		0.9999	
1	CL5	-0.00151716	0.00052626	0.00000000		0.00		0.9999	
1	CL6	0.00000000	0.00000000	0.00000000		0.00		0.9999	
1	CL7	0.00000000	0.00000000	0.00000000		0.00		0.9999	
1	CL8	0.00000000	0.00000000	0.00000000		0.00		0.9999	
1	CL9	0.00000000	0.00000000	0.00000000		0.00		0.9999	
1	CL10	0.00000000	0.00000000	0.00000000		0.00		0.9999	
1	CL11	0.00000000	0.00000000	0.00000000		0.00		0.9999	
1	CL12	0.00000000	0.00000000	0.00000000		0.00		0.9999	
1	CL13	0.00000000	0.00000000	0.00000000		0.00		0.9999	
1	CL14	0.00000000	0.00000000	0.00000000		0.00		0.9999	
1	CL15	0.00000000	0.00000000	0.00000000		0.00		0.9999	
1	CL16	0.00000000	0.00000000	0.00000000		0.00		0.9999	
1	CL17	0.00000000	0.00000000	0.00000000		0.00		0.9999	
1	CL18	0.00000000	0.00000000	0.00000000		0.00		0.9999	
1	CL19	0.00000000	0.00000000	0.00000000		0.00		0.9999	
1	CL20	0.00000000	0.00000000	0.00000000		0.00		0.9999	
1	CL21	0.00000000	0.00000000	0.00000000		0.00		0.9999	
1	CL22	0.00000000	0.00000000	0.00000000		0.00		0.9999	
1	CL23	0.00000000	0.00000000	0.00000000		0.00		0.9999	
1	CL24	0.00000000	0.00000000	0.00000000		0.00		0.9999	
TOTAL									

DEGRESSION		SUM OF SQUARES		MEAN SQUARE		F		PROB>F	
DF									
12		16.01333077		1.33444423		2.81		0.0035	
60		32.7424572		0.54427076					
TOTAL		48.7558049							

R VALUE		STD ERROR		TYPE II SS		F		PROB>F	
DF									
1	INTERCEPT	1.3776395	0.08143558	1.95418884		4.12		0.0463	
1	CL1	-0.16528990	0.15054423	2.87657636		6.06		0.0163	
1	CL2	0.37063449	0.15054423	2.87657636		6.06		0.0163	
1	CL3	0.00000000	0.00000000	0.00000000		0.00		0.9999	
1	CL4	0.00195646	0.00070102	0.00000000		0.00		0.9999	
1	CL5	-0.00045352	0.00039167	0.00000000		0.00		0.9999	
1	CL6	0.00153278	0.00022758	0.00000000		0.00		0.9999	
1	CL7	0.00000000	0.00000000	0.00000000		0.00		0.9999	
1	CL8	0.00000000	0.00000000	0.00000000		0.00		0.9999	
1	CL9	0.00000000	0.00000000	0.00000000		0.00		0.9999	
1	CL10	0.00000000	0.00000000	0.00000000		0.00		0.9999	
1	CL11	0.00000000	0.00000000	0.00000000		0.00		0.9999	
1	CL12	0.00000000	0.00000000	0.00000000		0.00		0.9999	
1	CL13	0.00000000	0.00000000	0.00000000		0.00		0.9999	
1	CL14	0.00000000	0.00000000	0.00000000		0.00		0.9999	
1	CL15	0.00000000	0.00000000	0.00000000		0.00		0.9999	
1	CL16	0.00000000	0.00000000	0.00000000		0.00		0.9999	
1	CL17	0.00000000	0.00000000	0.00000000		0.00		0.9999	
1	CL18	0.00000000	0.00000000	0.00000000		0.00		0.9999	
1	CL19	0.00000000	0.00000000	0.00000000		0.00		0.9999	
1	CL20	0.00000000	0.00000000	0.00000000		0.00		0.9999	
1	CL21	0.00000000	0.00000000	0.00000000		0.00		0.9999	
1	CL22	0.00000000	0.00000000	0.00000000		0.00		0.9999	
1	CL23	0.00000000	0.00000000	0.00000000		0.00		0.9999	
1	CL24	0.00000000	0.00000000	0.00000000		0.00		0.9999	
TOTAL									

THE ABOVE MODEL IS THE BEST 12 VARIABLE MODEL FOUND.

STEP 13 VARIABLE IN 14 ENTERED C(P) = 0.33907435 C(P) = 0.33907435

DEGRESSION		SUM OF SQUARES		MEAN SQUARE		F		PROB>F	
DF									
13		16.53312204		1.27177870		2.68		0.0043	
60		32.2265745		0.53877791					
TOTAL		48.75970049							

R VALUE		STD ERROR		TYPE II SS		F		PROB>F	
DF									
1	INTERCEPT	1.35051140	0.083995595	2.34787953		4.95		0.0293	
1	CL1	-0.16491422	0.15473653	2.86706462		6.04		0.0165	
1	CL2	0.36055666	0.15473653	2.86706462		6.04		0.0165	
1	CL3	-0.00191785	0.00069898	0.00000000		0.00		0.9999	
1	CL4	0.00745052	0.00032671	0.00000000		0.00		0.9999	
1	CL5	-0.00151716	0.00052626	0.00000000		0.00		0.9999	
1	CL6	0.00000000	0.00000000	0.00000000		0.00		0.9999	
1	CL7	0.00000000	0.00000000	0.00000000		0.00		0.9999	
1	CL8	0.00000000	0.00000000	0.00000000		0.00		0.9999	
1	CL9	0.00000000	0.00000000	0.00000000		0.00		0.9999	
1	CL10	0.00000000	0.00000000	0.00000000		0.00		0.9999	
1	CL11	0.00000000	0.00000000	0.00000000		0.00		0.9999	
1	CL12	0.00000000	0.00000000	0.00000000		0.00		0.9999	
1	CL13	0.00000000	0.00000000	0.00000000		0.00		0.9999	
1	CL14	0.00000000	0.00000000	0.00000000		0.00		0.9999	
1	CL15	0.00000000	0.00000000	0.00000000		0.00		0.9999	
1	CL16	0.00000000	0.00000000	0.00000000		0.00		0.9999	
1	CL17	0.00000000	0.00000000	0.00000000		0.00		0.9999	
1	CL18	0.00000000	0.00000000	0.00000000		0.00		0.9999	
1	CL19	0.00000000	0.00000000	0.00000000		0.00		0.9999	
1	CL20	0.00000000	0.00000000	0.00000000		0.00		0.9999	
1	CL21	0.00000000	0.00000000	0.00000000		0.00		0.9999	
1	CL22	0.00000000	0.00000000	0.00000000		0.00		0.9999	
1	CL23	0.00000000	0.00000000	0.00000000		0.00		0.9999	
1	CL24	0.00000000	0.00000000	0.00000000		0.00		0.9999	
TOTAL									



STATISTICAL ANALYSIS SYSTEM  
MAXIMUM P-SQUARE IMPROVEMENT FOR DEPENDENT VARIABLE TAN

STEP 13 DET13 REPLACED BY DET13

F SQUARE = 0.34334304 C(P) = 3.18228544

DE	R VALUE	STD ERROR	TYPE II SS	F	PROB>F
REGRESSION	13	16.79002214	2.5498991	5.42	0.0228
ERROR	68	31.9655833	3.58344521	7.62	0.0074
TOTAL	81	48.7558049	1.20156016	2.75	0.0035
			0.47014016		
INTERCEPT	1.26220660	0.08470344	2.5498991	5.42	0.0228
DET1	-0.19726438	0.15731613	3.58344521	7.62	0.0074
DET2	0.00000124	0.00000124	1.00983253	2.34	0.1306
DET3	-0.00192710	0.00027034	1.07586805	2.29	0.1350
DET4	-0.00192710	0.00027034	3.35525374	7.14	0.0094
DET5	0.00076370	0.00042666	1.22101089	2.60	0.1117
DET6	-0.00076370	0.00042666	4.50891083	10.44	0.0019
DET7	0.00002813	0.00055585	2.72345181	5.79	0.0188
DET8	0.00000044	0.00000022	1.81501910	3.86	0.0535
DET9	0.00000044	0.00000022	0.81096486	1.72	0.1935
DET10	0.00073218	0.00031335	2.56662218	5.46	0.0224
DET11	-0.0010272	0.00053881	1.95653881	4.16	0.0452
DET12	-0.00000664	0.00000235	3.74325433	7.96	0.0063
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STEP 1 VARIABLE DATA ENTERED  
 STATISTICAL ANALYSIS SYSTEM  
 MAXIMUM R-SQUARE IMPROVEMENT FOR DEPENDENT VARIABLE TS  
 R SQUARE = 0.79261627 C(P) = 112.02685440

SUM OF SQUARES		MEAN SQUARE		F		PROB>F	
REGRESSION	1	0.78923799	0.78923799	305.76	0.0001		
ERROR	81	0.20649982	0.00258125				
TOTAL	82	0.99573780					
R VALUE		STD ERROR		TYPE II SS		F	
0.89220006		0.00000000		0.78923799		305.76	
0.00000000		0.00000000		0.78923799		305.76	

THE ABOVE MODEL IS THE BEST 1 VARIABLE MODEL FOUND.

SUM OF SQUARES		MEAN SQUARE		F		PROB>F	
REGRESSION	2	0.80706712	0.40353356	168.97	0.0001		
ERROR	79	0.1867068	0.00238824				
TOTAL	81	0.99573780					
R VALUE		STD ERROR		TYPE II SS		F	
0.90232351		0.00000001		0.50145484		209.97	
0.00000007		0.00000002		0.01782914		7.47	
-0.00000005		0.00000002		0.50145484		209.97	

THE ABOVE MODEL IS THE BEST 2 VARIABLE MODEL FOUND.

SUM OF SQUARES		MEAN SQUARE		F		PROB>F	
REGRESSION	3	0.84564416	0.28188139	146.28	0.0001		
ERROR	78	0.15027185	0.00197659				
TOTAL	81	0.99573780					
R VALUE		STD ERROR		TYPE II SS		F	
0.9184397		0.00002779		0.03839704		19.93	
0.00010176		0.00000001		0.10206730		52.98	
0.00000009		0.00000002		0.08824830		25.04	

THE ABOVE MODEL IS THE BEST 3 VARIABLE MODEL FOUND.

SUM OF SQUARES		MEAN SQUARE		F		PROB>F	
REGRESSION	4	0.85037260	0.21274315	113.16	0.0001		
ERROR	77	0.14476421	0.00188007				
TOTAL	81	0.99573780					
R VALUE		STD ERROR		TYPE II SS		F	
0.92961340		0.00000000		0.04386426		23.33	
0.00011772		0.00000002		0.03481217		18.52	
0.00000008		0.00000003		0.00453419		4.54	
-0.00000006		0.00000001		0.00550844		2.93	

SUM OF SQUARES		MEAN SQUARE		F		PROB>F	
REGRESSION	5	0.85037260	0.21274315	113.16	0.0001		
ERROR	76	0.14476421	0.00188007				
TOTAL	81	0.99573780					
R VALUE		STD ERROR		TYPE II SS		F	
0.92961340		0.00000000		0.04386426		23.33	
0.00011772		0.00000002		0.03481217		18.52	
0.00000008		0.00000003		0.00453419		4.54	
-0.00000006		0.00000001		0.00550844		2.93	



STATISTICAL ANALYSIS SYSTEM  
 MAXIMUM R-SQUARE IMPROVEMENT FOR DEPENDENT VARIABLE IS  
 STEP 4 DET24 REPLACED BY DET23 F SQUARE = 0.85051766 C(P) = 56.72473858

REGRESSION	77	0.85585423	0.21396356	117.78	0.0001	PROB>F
ERROR	81	0.13988357	0.00181667			
TOTAL		0.99573780				
INTERCEPT	0.02815703					
DET3	0.00012662	0.00002432	0.04925277	27.11	0.0001	
DET13	0.00000010	0.00000007	0.11252203	61.94	0.0001	
DET12	-0.00000018	0.00000007	0.01341583	7.50	0.0081	
DET14	-0.00000007	0.00000001	0.01858210	10.23	0.0020	

THE ABOVE MODEL IS THE BEST 4 VARIABLE MODEL FOUND.

STEP 5 VARIABLE DET13 ENTERED F SQUARE = 0.86577590 C(P) = 52.99077945

REGRESSION	78	0.86208580	0.17241716	98.04	0.0001	PROB>F
ERROR	81	0.13265201	0.00175858			
TOTAL		0.99573780				
INTERCEPT	0.02815703					
DET3	0.00012662	0.00002432	0.05221885	29.69	0.0001	
DET13	0.00000010	0.00000007	0.11848981	67.38	0.0001	
DET12	-0.00000018	0.00000007	0.00623157	3.54	0.0636	
DET14	-0.00000006	0.00000001	0.00993264	5.65	0.0200	
DET13	-0.00000006	0.00000001	0.02276588	12.95	0.0008	

THE ABOVE MODEL IS THE BEST 5 VARIABLE MODEL FOUND.

STEP 6 VARIABLE DET23 ENTERED F SQUARE = 0.87797299 C(P) = 43.81402107

REGRESSION	79	0.87423090	0.14570515	89.94	0.0001	PROB>F
ERROR	81	0.12150691	0.00162009			
TOTAL		0.99573780				
INTERCEPT	0.02815703					
DET3	0.00012662	0.00002432	0.02322661	15.37	0.0002	
DET13	0.00000010	0.00000007	0.12382682	76.43	0.0001	
DET12	-0.00000018	0.00000007	0.01214510	7.50	0.0077	
DET14	-0.00000007	0.00000001	0.01722981	10.24	0.0017	
DET13	-0.00000006	0.00000001	0.01512781	13.28	0.0003	
DET14	-0.00000003	0.00000001	0.01346176	8.51	0.0091	

STEP 6 DET34 REPLACED BY DET44 F SQUARE = 0.87842783 C(P) = 43.39724985

REGRESSION	80	0.87468380	0.14578063	90.32	0.0001	PROB>F
ERROR	81	0.12105421	0.00161405			
TOTAL		0.99573780				
INTERCEPT	0.02815703					
DET3	0.00012662	0.00002432	0.02336349	14.64	0.0003	
DET13	0.00000010	0.00000007	0.09950692	61.85	0.0001	
DET12	-0.00000018	0.00000007	0.01214510	7.50	0.0077	
DET14	-0.00000007	0.00000001	0.01722981	10.24	0.0017	
DET13	-0.00000006	0.00000001	0.01512781	13.28	0.0003	
DET14	-0.00000003	0.00000001	0.01346176	8.51	0.0091	



STATISTICAL ANALYSIS SYSTEM  
MAXIMUM R-SQUARE IMPROVEMENT FOR DEPENDENT VARIABLE TS

STEP 6 DET13 REPLACED BY DET14

R SQUARE = 0.87843330 C(P) = 43.39223324

REGRESSION	DF	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
ERROR	6	0.87468525	0.14578154	90.32	0.0001
TOTAL	75	0.11104852	0.001468399		
	RT	0.99573780			
INTERCEPT	R VALUE	STD ERROR	TYPE II SS	F	PROB>F
DET13	0.03320831	0.00002378	0.02392217	14.82	0.0002
DET14	0.00000156	0.00000001	0.00967039	61.75	0.0001
DET15	0.00000010	0.00000000	0.01363595	8.45	0.0058
DET16	-0.00000001	0.00000000	0.01533423	9.50	0.0029
DET17	0.00000000	0.00000000	0.01896184	11.75	0.0010
DET18	-0.00000000	0.00000000	0.02712285	16.80	0.0001

THE ABOVE MODEL IS THE BEST 6 VARIABLE MODEL FOUND.

STEP 7 VARIABLE DET11 ENTERED

R SQUARE = 0.88600107 C(P) = 38.45784752

REGRESSION	DF	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
ERROR	7	0.88222476	0.12603211	82.16	0.0001
TOTAL	74	0.11051304	0.001505396		
	RT	0.99573780			
INTERCEPT	R VALUE	STD ERROR	TYPE II SS	F	PROB>F
DET11	0.0542434	0.00000292	0.00753551	4.91	0.0297
DET12	0.00000647	0.00000000	0.00823224	5.37	0.0233
DET13	0.00000017	0.00000000	0.03695934	24.09	0.0001
DET14	-0.00000001	0.00000000	0.01517925	9.90	0.0024
DET15	0.00000000	0.00000000	0.01337123	8.72	0.0042
DET16	-0.00000001	0.00000000	0.00797502	5.20	0.0255
DET17	-0.00000000	0.00000000	0.03472082	22.24	0.0001

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STEP 7 DET14 REPLACED BY DET13

R SQUARE = 0.88893706 C(P) = 35.76757980

REGRESSION	DF	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
ERROR	7	0.88514824	0.12646975	84.61	0.0001
TOTAL	74	0.11051304	0.001505396		
	RT	0.99573780			
INTERCEPT	R VALUE	STD ERROR	TYPE II SS	F	PROB>F
DET11	0.03172443	0.00000294	0.01097611	7.34	0.0084
DET12	0.00000797	0.00000000	0.01016760	6.80	0.0110
DET13	0.00000000	0.00000000	0.05247227	35.11	0.0001
DET14	0.00000016	0.00000000	0.00901007	6.03	0.0164
DET15	-0.00000001	0.00000000	0.01146761	7.67	0.0071
DET16	-0.00000000	0.00000000	0.02896786	19.38	0.0001
DET17	-0.00000000	0.00000000	0.01810273	12.11	0.0008



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STATISTICAL ANALYSIS SYSTEM  
MAXIMUM P-SQUARE IMPROVEMENT FOR DEPENDENT VARIABLE TS  
STEP 7 DFT3 REPLACED BY DFT2 R SQUARE = 0.8977981 C(P) = 34.99536442

DE		SUM OF SQUARES	MEAN SQUARE	F	PROB>F
REGRESSION	7	0.88598740	0.12655693	85.34	0.0001
TOTAL	74	0.10475041	0.00148311		
R VALUE		STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	0.03408121	0.00000273	0.03279730	23.11	0.0001
CL1	0.00001284	0.00007502	0.01100675	66.91	0.0001
CL2	0.00026436	0.00000004	0.09223091	4.91	0.0298
CL3	0.00000000	0.00000000	0.00727765	22.85	0.0001
CL4	0.00000000	0.00000000	0.03388502	40.58	0.0001
CL5	0.00000000	0.00000012	0.06019113	10.03	0.0022
CL6	0.00000000	0.00000001	0.01487164		

STEP 7 C2D2 REPLACED BY CL1 R SQUARE = 0.89468241 C(P) = 30.50398881

DE		SUM OF SQUARES	MEAN SQUARE	F	PROB>F
REGRESSION	7	0.89086910	0.12726701	89.81	0.0001
TOTAL	74	0.10466871	0.00147114		
R VALUE		STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	0.03408121	0.00000273	0.03279730	23.11	0.0001
CL1	0.00001284	0.00007502	0.01100675	66.91	0.0001
CL2	0.00026436	0.00000004	0.09223091	4.91	0.0298
CL3	0.00000000	0.00000000	0.00727765	22.85	0.0001
CL4	0.00000000	0.00000000	0.03388502	40.58	0.0001
CL5	0.00000000	0.00000012	0.06019113	10.03	0.0022
CL6	0.00000000	0.00000001	0.01487164		

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DE		SUM OF SQUARES	MEAN SQUARE	F	PROB>F
REGRESSION	7	0.89486973	0.12783853	93.79	0.0001
TOTAL	74	0.10086808	0.00136308		
R VALUE		STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	0.03408121	0.00000273	0.03279730	23.11	0.0001
CL1	0.00001284	0.00007502	0.01100675	66.91	0.0001
CL2	0.00026436	0.00000004	0.09223091	4.91	0.0298
CL3	0.00000000	0.00000000	0.00727765	22.85	0.0001
CL4	0.00000000	0.00000000	0.03388502	40.58	0.0001
CL5	0.00000000	0.00000012	0.06019113	10.03	0.0022
CL6	0.00000000	0.00000001	0.01487164		

STEP 7 DFT14 REPLACED BY DFT2 R SQUARE = 0.89870016 C(P) = 26.82159822

DE		SUM OF SQUARES	MEAN SQUARE	F	PROB>F
REGRESSION	7	0.8986973	0.12783853	93.79	0.0001
TOTAL	74	0.10086808	0.00136308		
R VALUE		STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	0.03408121	0.00000273	0.03279730	23.11	0.0001
CL1	0.00001284	0.00007502	0.01100675	66.91	0.0001
CL2	0.00026436	0.00000004	0.09223091	4.91	0.0298
CL3	0.00000000	0.00000000	0.00727765	22.85	0.0001
CL4	0.00000000	0.00000000	0.03388502	40.58	0.0001
CL5	0.00000000	0.00000012	0.06019113	10.03	0.0022
CL6	0.00000000	0.00000001	0.01487164		

DE		SUM OF SQUARES	MEAN SQUARE	F	PROB>F
REGRESSION	7	0.8986973	0.12783853	93.79	0.0001
TOTAL	74	0.10086808	0.00136308		
R VALUE		STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	0.03408121	0.00000273	0.03279730	23.11	0.0001
CL1	0.00001284	0.00007502	0.01100675	66.91	0.0001
CL2	0.00026436	0.00000004	0.09223091	4.91	0.0298
CL3	0.00000000	0.00000000	0.00727765	22.85	0.0001
CL4	0.00000000	0.00000000	0.03388502	40.58	0.0001
CL5	0.00000000	0.00000012	0.06019113	10.03	0.0022
CL6	0.00000000	0.00000001	0.01487164		



STATISTICAL ANALYSIS SYSTEM  
MAXIMUM P-SQUARE IMPROVEMENT FOR DEPENDENT VARIABLE TS

STEP 7 DET23 REPLACED BY C103

R SQUARE = 0.90641894 CPI = 19.74884515

SUM OF SQUARES		MEAN SQUARE		F		PROB>F	
DF							
7	REGRESSION	0.90255560		102.39		0.0001	
74	Error	0.09318220					
81	TOTAL	0.99573780					
STD ERROR		TYPE II SS		F		PROB>F	
DF	R VALUE						
7	INTERCEPT	0.00054883	0.02982443	23.68		0.0001	
74	C11	0.00000265	0.006630990	52.66		0.0001	
74	DET1	0.00005141	0.01080202	8.58		0.0043	
74	DET2	0.00000071	0.01747683	117.12		0.0001	
74	C103	0.00000071	0.01487091	11.81		0.0010	
74	DET12	-0.00000006	0.01771922	13.77		0.0001	
74	DET14	-0.00000002	0.01721378	13.72		0.0004	

STEP 7 DET1 REPLACED BY C201

R SQUARE = 0.90897217 CPI = 17.40929881

SUM OF SQUARES		MEAN SQUARE		F		PROB>F	
DF							
7	REGRESSION	0.90509796		105.56		0.0001	
74	Error	0.09063985					
81	TOTAL	0.99573780					
STD ERROR		TYPE II SS		F		PROB>F	
DF	R VALUE						
7	INTERCEPT	0.00053794	0.02781080	22.71		0.0001	
74	C11	0.00005141	0.01281363	10.46		0.0018	
74	DET1	0.00000003	0.014501708	118.39		0.0001	
74	C103	0.00000065	0.02336651	19.06		0.0001	
74	C201	0.00000008	0.06855226	58.21		0.0001	
74	DET12	-0.00000017	0.0638444	53.85		0.0001	
74	DET14	-0.00000006	0.04758160	38.85		0.0001	

STEP 7 DET2 REPLACED BY DET4

R SQUARE = 0.90911527 CPI = 17.27817568

SUM OF SQUARES		MEAN SQUARE		F		PROB>F	
DF							
7	REGRESSION	0.90524045		105.75		0.0001	
74	Error	0.09049736					
81	TOTAL	0.99573780					
STD ERROR		TYPE II SS		F		PROB>F	
DF	R VALUE						
7	INTERCEPT	0.00052795	0.01515278	12.39		0.0007	
74	C11	0.00001097	0.01295562	10.59		0.0017	
74	DET1	0.00000003	0.013815079	11.59		0.0061	
74	C103	0.00000059	0.01711101	13.58		0.0028	
74	C201	0.00000008	0.06566413	53.88		0.0001	
74	DET12	-0.00000015	0.05144397	43.31		0.0001	
74	DET14	-0.00000002	0.04891808	31.87		0.0001	



STEP 7 C201 REPLACED BY C101 F SQUARE = 0.90955671 C(P) = 16.87368659  
 MAXIMUM P-SQUARE IMPROVEMENT FOR DEPENDENT VARIABLE IS

OF		SUM OF SQUARES		MEAN SQUARE		F		PROB>F	
REGRESSION		7		0.90568000		106.31		0.0001	
ERROR		74		0.09005780					
TOTAL		81		0.99573780					
R VALUE		STD ERROR		TYPE II SS		F		PROB>F	
INTERCEPT		-0.03096664		0.00052656		12.29		0.0008	
X1		0.00184580		0.00001105		11.11		0.0001	
X2		0.00000000		0.00000000		11.11		0.0001	
X3		0.00000000		0.00000000		11.11		0.0001	
X4		0.00000000		0.00000000		11.11		0.0001	
X5		0.00000000		0.00000000		11.11		0.0001	
X6		0.00000000		0.00000000		11.11		0.0001	
X7		0.00000000		0.00000000		11.11		0.0001	
X8		0.00000000		0.00000000		11.11		0.0001	
X9		0.00000000		0.00000000		11.11		0.0001	
X10		0.00000000		0.00000000		11.11		0.0001	
X11		0.00000000		0.00000000		11.11		0.0001	
X12		0.00000000		0.00000000		11.11		0.0001	
X13		0.00000000		0.00000000		11.11		0.0001	
X14		0.00000000		0.00000000		11.11		0.0001	

THE ABOVE MODEL IS THE BEST 7 VARIABLE MODEL FOUND.

OF		SUM OF SQUARES		MEAN SQUARE		F		PROB>F	
REGRESSION		7		0.90977223		96.57		0.0001	
ERROR		74		0.08596558					
TOTAL		81		0.99573780					
R VALUE		STD ERROR		TYPE II SS		F		PROB>F	
INTERCEPT		-0.04211485		0.00055249		15.92		0.0002	
X1		0.00226412		0.00001106		15.13		0.0002	
X2		0.00000000		0.00000000		15.13		0.0001	
X3		0.00000000		0.00000000		15.13		0.0001	
X4		0.00000000		0.00000000		15.13		0.0001	
X5		0.00000000		0.00000000		15.13		0.0001	
X6		0.00000000		0.00000000		15.13		0.0001	
X7		0.00000000		0.00000000		15.13		0.0001	
X8		0.00000000		0.00000000		15.13		0.0001	
X9		0.00000000		0.00000000		15.13		0.0001	
X10		0.00000000		0.00000000		15.13		0.0001	
X11		0.00000000		0.00000000		15.13		0.0001	
X12		0.00000000		0.00000000		15.13		0.0001	
X13		0.00000000		0.00000000		15.13		0.0001	
X14		0.00000000		0.00000000		15.13		0.0001	

OF		SUM OF SQUARES		MEAN SQUARE		F		PROB>F	
REGRESSION		7		0.91286745		100.52		0.0001	
ERROR		74		0.08287035					
TOTAL		81		0.99573780					
R VALUE		STD ERROR		TYPE II SS		F		PROB>F	
INTERCEPT		-0.04627438		0.00054648		18.91		0.0001	
X1		0.00237613		0.00001077		14.51		0.0003	
X2		0.00000000		0.00000000		105.24		0.0001	
X3		0.00000000		0.00000000		16.61		0.0001	
X4		0.00000000		0.00000000		62.01		0.0001	
X5		0.00000000		0.00000000		6.72		0.0115	
X6		0.00000000		0.00000000		62.39		0.0001	
X7		0.00000000		0.00000000					
X8		0.00000000		0.00000000					
X9		0.00000000		0.00000000					
X10		0.00000000		0.00000000					
X11		0.00000000		0.00000000					
X12		0.00000000		0.00000000					
X13		0.00000000		0.00000000					
X14		0.00000000		0.00000000					

OF		SUM OF SQUARES		MEAN SQUARE		F		PROB>F	
REGRESSION		7		0.91677493		100.52		0.0001	
ERROR		74		0.08287035					
TOTAL		81		0.99573780					
R VALUE		STD ERROR		TYPE II SS		F		PROB>F	
INTERCEPT		-0.04627438		0.00054648		18.91		0.0001	
X1		0.00237613		0.00001077		14.51		0.0003	
X2		0.00000000		0.00000000		105.24		0.0001	
X3		0.00000000		0.00000000		16.61		0.0001	
X4		0.00000000		0.00000000		62.01		0.0001	
X5		0.00000000		0.00000000		6.72		0.0115	
X6		0.00000000		0.00000000		62.39		0.0001	
X7		0.00000000		0.00000000					
X8		0.00000000		0.00000000					
X9		0.00000000		0.00000000					
X10		0.00000000		0.00000000					
X11		0.00000000		0.00000000					
X12		0.00000000		0.00000000					
X13		0.00000000		0.00000000					
X14		0.00000000		0.00000000					



STEP 8 CL1 REPLACED BY CL2

R SQUARE = 0.91748184 C(P) = 11.61184764

DE	R	VALUE	STD ERROR	TYPE II SS	F	PROB>F
INTERCEPTION	73	0.9137135	0.0008763	0.02216619	19.69	0.0001
CL2	72	0.0000000	0.0000000	0.0000000	17.01	0.0001
CL1	71	0.0000000	0.0000000	0.0000000	17.01	0.0001
CL3	70	0.0000000	0.0000000	0.0000000	17.14	0.0001
CL4	69	0.0000000	0.0000000	0.0000000	63.29	0.0001
CL5	68	0.0000000	0.0000000	0.0000000	9.03	0.0036
CL6	67	0.0000000	0.0000000	0.0000000	63.62	0.0001
CL7	66	0.0000000	0.0000000	0.0000000	48.49	0.0001

STEP 8 CL2 REPLACED BY CL2

R SQUARE = 0.91770711 C(P) = 11.40542718

DE	R	VALUE	STD ERROR	TYPE II SS	F	PROB>F
INTERCEPTION	73	0.9137135	0.0008763	0.02216619	19.69	0.0001
CL2	72	0.0000000	0.0000000	0.0000000	17.01	0.0001
CL1	71	0.0000000	0.0000000	0.0000000	17.01	0.0001
CL3	70	0.0000000	0.0000000	0.0000000	17.14	0.0001
CL4	69	0.0000000	0.0000000	0.0000000	63.29	0.0001
CL5	68	0.0000000	0.0000000	0.0000000	9.03	0.0036
CL6	67	0.0000000	0.0000000	0.0000000	63.62	0.0001
CL7	66	0.0000000	0.0000000	0.0000000	48.49	0.0001

THE ABOVE MODEL IS THE BEST 8 VARIABLE MODEL FOUND.

STEP 9 VARIABLE DE122 ENTERED

R SQUARE = 0.92000623 C(P) = 11.29872783

DE	R	VALUE	STD ERROR	TYPE II SS	F	PROB>F
INTERCEPTION	73	0.9137135	0.0008763	0.02216619	19.69	0.0001
CL2	72	0.0000000	0.0000000	0.0000000	17.01	0.0001
CL1	71	0.0000000	0.0000000	0.0000000	17.01	0.0001
CL3	70	0.0000000	0.0000000	0.0000000	17.14	0.0001
CL4	69	0.0000000	0.0000000	0.0000000	63.29	0.0001
CL5	68	0.0000000	0.0000000	0.0000000	9.03	0.0036
CL6	67	0.0000000	0.0000000	0.0000000	63.62	0.0001
CL7	66	0.0000000	0.0000000	0.0000000	48.49	0.0001

DE	R	VALUE	STD ERROR	TYPE II SS	F	PROB>F
INTERCEPTION	73	0.9137135	0.0008763	0.02216619	19.69	0.0001
CL2	72	0.0000000	0.0000000	0.0000000	17.01	0.0001
CL1	71	0.0000000	0.0000000	0.0000000	17.01	0.0001
CL3	70	0.0000000	0.0000000	0.0000000	17.14	0.0001
CL4	69	0.0000000	0.0000000	0.0000000	63.29	0.0001
CL5	68	0.0000000	0.0000000	0.0000000	9.03	0.0036
CL6	67	0.0000000	0.0000000	0.0000000	63.62	0.0001
CL7	66	0.0000000	0.0000000	0.0000000	48.49	0.0001



STEP 9 CIN2 REPLACED BY C202

F SQUARE = 0.92051710

C(P) = 10.83062073

REGRESSION	DF	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
ERROR	72	0.91659368	0.12730439	92.65	0.0001
TOTAL	81	0.97814413	0.0109922		
		0.9957378C			
R VALUE	STD ERROR	TYPE II SS	F	PROB>F	
INTERCEPT	0.04252367				
CL2	0.00087910	0.00000000	0.00000000	0.0001	0.0001
DELTA	0.00000000	0.00000000	0.00000000	0.0001	0.0001
DELTA2	0.00000000	0.00000000	0.00000000	0.0001	0.0001
DELTA3	0.00000000	0.00000000	0.00000000	0.0001	0.0001
DELTA4	0.00000000	0.00000000	0.00000000	0.0001	0.0001
DELTA5	0.00000000	0.00000000	0.00000000	0.0001	0.0001
DELTA6	0.00000000	0.00000000	0.00000000	0.0001	0.0001
DELTA7	0.00000000	0.00000000	0.00000000	0.0001	0.0001
DELTA8	0.00000000	0.00000000	0.00000000	0.0001	0.0001
DELTA9	0.00000000	0.00000000	0.00000000	0.0001	0.0001
DELTA10	0.00000000	0.00000000	0.00000000	0.0001	0.0001
DELTA11	0.00000000	0.00000000	0.00000000	0.0001	0.0001
DELTA12	0.00000000	0.00000000	0.00000000	0.0001	0.0001
DELTA13	0.00000000	0.00000000	0.00000000	0.0001	0.0001
DELTA14	0.00000000	0.00000000	0.00000000	0.0001	0.0001

THE ABOVE MODEL IS THE BEST 9 VARIABLE MODEL FOUND.

STEP 10 VARIABLE DELTA1 ENTERED

P SQUARE = 0.92234928

C(P) = 11.15178213

REGRESSION	DF	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
ERROR	10	0.91841805	0.09184180	84.34	0.0001
TOTAL	71	0.9731916	0.00108901		
		0.99573780			
R VALUE	STD ERROR	TYPE II SS	F	PROB>F	
INTERCEPT	0.04777274				
CL2	0.00095141	0.00000000	0.00000000	0.0001	0.0001
DELTA	0.00000000	0.00000000	0.00000000	0.0001	0.0001
DELTA2	0.00000000	0.00000000	0.00000000	0.0001	0.0001
DELTA3	0.00000000	0.00000000	0.00000000	0.0001	0.0001
DELTA4	0.00000000	0.00000000	0.00000000	0.0001	0.0001
DELTA5	0.00000000	0.00000000	0.00000000	0.0001	0.0001
DELTA6	0.00000000	0.00000000	0.00000000	0.0001	0.0001
DELTA7	0.00000000	0.00000000	0.00000000	0.0001	0.0001
DELTA8	0.00000000	0.00000000	0.00000000	0.0001	0.0001
DELTA9	0.00000000	0.00000000	0.00000000	0.0001	0.0001
DELTA10	0.00000000	0.00000000	0.00000000	0.0001	0.0001
DELTA11	0.00000000	0.00000000	0.00000000	0.0001	0.0001
DELTA12	0.00000000	0.00000000	0.00000000	0.0001	0.0001
DELTA13	0.00000000	0.00000000	0.00000000	0.0001	0.0001
DELTA14	0.00000000	0.00000000	0.00000000	0.0001	0.0001

THE ABOVE MODEL IS THE BEST 10 VARIABLE MODEL FOUND.

STEP 11 VARIABLE DELTA14 ENTERED

P SQUARE = 0.92628018

C(P) = 9.54987352

REGRESSION	DF	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
ERROR	11	0.92233220	0.08384838	79.96	0.0001
TOTAL	70	0.97340561	0.00108905		
		0.9957378C			
R VALUE	STD ERROR	TYPE II SS	F	PROB>F	
INTERCEPT	0.06664818				
CL2	0.00566530	0.00000000	0.00000000	0.0001	0.0001
DELTA	0.00000000	0.00000000	0.00000000	0.0001	0.0001
DELTA2	0.00000000	0.00000000	0.00000000	0.0001	0.0001
DELTA3	0.00000000	0.00000000	0.00000000	0.0001	0.0001
DELTA4	0.00000000	0.00000000	0.00000000	0.0001	0.0001
DELTA5	0.00000000	0.00000000	0.00000000	0.0001	0.0001
DELTA6	0.00000000	0.00000000	0.00000000	0.0001	0.0001
DELTA7	0.00000000	0.00000000	0.00000000	0.0001	0.0001
DELTA8	0.00000000	0.00000000	0.00000000	0.0001	0.0001
DELTA9	0.00000000	0.00000000	0.00000000	0.0001	0.0001
DELTA10	0.00000000	0.00000000	0.00000000	0.0001	0.0001
DELTA11	0.00000000	0.00000000	0.00000000	0.0001	0.0001
DELTA12	0.00000000	0.00000000	0.00000000	0.0001	0.0001
DELTA13	0.00000000	0.00000000	0.00000000	0.0001	0.0001
DELTA14	0.00000000	0.00000000	0.00000000	0.0001	0.0001

INTERCEPT

CL2

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DELTA2

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DELTA4

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DELTA222

DELTA223

DELTA224

DELTA225

DELTA226



DE	R VALUE	STD ERROR	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
REGRESSION	11	0.92280184	0.92280184	0.08389109	80.51	0.0001
ERROR	70	0.01293197	0.01293197	0.00104194		
TOTAL	81	0.99573780	0.99573780			

R VALUE	STD ERROR	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
INTERCEPT	-0.07196699	0.00119870	0.02618710	25.13	0.0001
CL2	0.00000442	0.00000126	0.01637175	15.71	0.0002
DE14	0.00004465	0.00000000	0.00843657	8.12	0.0038
DE11	-0.00000000	0.00000000	0.00623465	5.91	0.0153
DE12	-0.00000000	0.00000000	0.05602083	53.77	0.0001
CL01	0.00000044	0.00000000	0.02028745	19.47	0.0001
CL03	0.00000085	0.00000000	0.02133899	20.48	0.0001
CL02	-0.00000070	0.00000000	0.01565443	15.02	0.0002
DE112	0.00000017	0.00000000	0.05669692	54.41	0.0001
DE114	-0.00000001	0.00000000	0.00480571	4.61	0.0352
DE134	-0.00000008	0.00000000	0.01355937	13.01	0.0006

STEP 11 DE122 REPLACED BY DE123 R SQUARE = 0.92690704 CIP1 = 0.97547899

DE	R VALUE	STD ERROR	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
REGRESSION	11	0.92295638	0.92295638	0.08390513	80.70	0.0001
ERROR	70	0.01278142	0.01278142	0.00103973		
TOTAL	81	0.99573780	0.99573780			

R VALUE	STD ERROR	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
INTERCEPT	-0.06503891	0.00115901	0.02442937	23.50	0.0001
CL2	0.00001800	0.00000108	0.01340730	12.89	0.0006
DE11	0.00000000	0.00000000	0.00891420	8.57	0.0046
DE13	0.00000000	0.00000000	0.05107615	49.12	0.0001
CL01	0.00000044	0.00000000	0.02030194	19.53	0.0001
CL03	0.00000017	0.00000000	0.02153834	20.72	0.0001
CL02	0.00000007	0.00000000	0.01635955	15.73	0.0002
DE112	0.00000013	0.00000000	0.02320986	22.32	0.0001
DE114	-0.00000001	0.00000000	0.00624214	6.00	0.0168
DE134	-0.00000004	0.00000000	0.00658921	6.34	0.0141
DE132	-0.00000006	0.00000000	0.00750747	7.22	0.0090

THE ABOVE MODEL IS THE BEST 11 VARIABLE MODEL FOUND.

STEP 12 VARIABLE DE13 ENTERED R SQUARE = 0.92911025 CIP1 = 0.95667103

DE	R VALUE	STD ERROR	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
REGRESSION	12	0.92515020	0.92515020	0.07709585	75.36	0.0001
ERROR	69	0.01358761	0.01358761	0.00102301		
TOTAL	81	0.99573780	0.99573780			

R VALUE	STD ERROR	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
INTERCEPT	-0.06174393	0.00115019	0.02485572	24.30	0.0001
CL2	0.00000442	0.00000126	0.00219181	2.14	0.1476
DE14	0.00004465	0.00000000	0.00370663	3.65	0.0604
DE11	-0.00000000	0.00000000	0.00944304	9.23	0.0034
DE12	0.00000000	0.00000000	0.04123357	41.23	0.0001
CL01	0.00000044	0.00000000	0.01901120	18.59	0.0001
CL03	0.00000085	0.00000000	0.02304605	23.04	0.0001
CL02	-0.00000070	0.00000000	0.01744745	17.45	0.0001
DE112	0.00000017	0.00000000	0.01100359	10.76	0.0016
DE114	-0.00000001	0.00000000	0.00701828	6.86	0.0108
DE134	-0.00000008	0.00000000	0.00812615	7.94	0.0063
DE132	-0.00000006	0.00000000	0.00306415	3.00	0.0880

F



# STATISTICAL ANALYSIS SYSTEM MAXIMUM R-SQUARE IMPROVEMENT FOR DEPENDENT VARIABLE TS

MAXIM'L R-SQUARE IMPROVEMENT FOR DEPENDENT VARIABLE TS

STEP 12 NET4 REFLACED BY DET44

$R^2_{\text{SQUARE}} = 0.92985105$   $C(P) = A.27786789$

	IN	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
REGRESSION	12	0.92888785	0.07715732	76.22	0.0001
ERROR	69	0.0694596	0.00101232		
TOTAL	81	0.99834746			
			TYPE II SS	F	PROB>F
INTERCEPT	-0.0594776	0.00114373	0.0289678	24.59	0.0001
C12	0.00582302	0.0002424	0.0036201	13.50	0.0003
DEL1	0.0000344	0.0000000	0.0000000	0.00	0.9583
DEL2	-0.0000000	0.0000000	0.0000000	0.00	0.9583
DEL3	0.0000000	0.0000000	0.0000000	0.00	0.9583
DEL4	0.0000000	0.0000000	0.0000000	0.00	0.9583
C14	0.0000000	0.0000000	0.0000000	0.00	0.9583
C13	0.0000000	0.0000000	0.0000000	0.00	0.9583
C11	0.0000000	0.0000000	0.0000000	0.00	0.9583
C10	0.0000000	0.0000000	0.0000000	0.00	0.9583
C9	0.0000000	0.0000000	0.0000000	0.00	0.9583
C8	0.0000000	0.0000000	0.0000000	0.00	0.9583
C7	0.0000000	0.0000000	0.0000000	0.00	0.9583
C6	0.0000000	0.0000000	0.0000000	0.00	0.9583
C5	0.0000000	0.0000000	0.0000000	0.00	0.9583
C4	0.0000000	0.0000000	0.0000000	0.00	0.9583
C3	0.0000000	0.0000000	0.0000000	0.00	0.9583
C2	0.0000000	0.0000000	0.0000000	0.00	0.9583
C1	0.0000000	0.0000000	0.0000000	0.00	0.9583
DEL12	0.0000000	0.0000000	0.0000000	0.00	0.9583
DEL11	0.0000000	0.0000000	0.0000000	0.00	0.9583
DEL10	0.0000000	0.0000000	0.0000000	0.00	0.9583
DEL9	0.0000000	0.0000000	0.0000000	0.00	0.9583
DEL8	0.0000000	0.0000000	0.0000000	0.00	0.9583
DEL7	0.0000000	0.0000000	0.0000000	0.00	0.9583
DEL6	0.0000000	0.0000000	0.0000000	0.00	0.9583
DEL5	0.0000000	0.0000000	0.0000000	0.00	0.9583
DEL4	0.0000000	0.0000000	0.0000000	0.00	0.9583
DEL3	0.0000000	0.0000000	0.0000000	0.00	0.9583
DEL2	0.0000000	0.0000000	0.0000000	0.00	0.9583
DEL1	0.0000000	0.0000000	0.0000000	0.00	0.9583

THE ABOVE MODEL IS THE BEST 12 VARIABLE MODEL FOUND.

STEP 13 VARIABLE C11 ENTERED

F SQUARE = 0.93070749 C(P) = 9.49310443

REGRESSION	DF	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
PROP	12	0.92674064	0.07128774	70.26	0.0001
TOTAL	64	3.06899717	0.00101466		
	R	0.9573780			

	R VALUE	STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	-0.0576F534				
CE1	0.00007757	0.00122754	0.02847220	24.51	0.0001
CE13	0.00002221	0.00023824	0.00840049	0.84	0.0049
CE11	-0.00000474	0.00000519	0.00085279	0.845	0.3625
CE131	0.00000000	0.00000000	0.00000000	0.0003	0.0193
CE133	0.00000048	0.00000008	0.00015908	0.0001	0.0001
CE144	0.00000031	0.00000015	0.00047994	38.42	0.0001
CE103	0.00000072	0.00000019	0.01247997	15.27	0.0003
CE104	0.00000047	0.00000019	0.01247997	15.27	0.0003
CE101	0.00001537	0.00000055	0.01203214	12.84	0.0006
CE112	0.00000012	0.00000003	0.01247997	12.84	0.0006
CE102	-0.00000021	0.00000001	0.00028614	4.22	0.0437
CE105	0.00000021	0.00000001	0.00028614	4.22	0.0437
CE134	-0.00000010	0.00000005	0.00041757	4.35	0.0407







STATISTICAL ANALYSIS SYSTEM  
MAXIMUM F-SQUARE IMPROVEMENT FOR DEPENDENT VARIABLE IS  
STEP 15 VARIABLE C12 ENTERED F SQUARE = 0.93389192 C(P) = 10.57519440

OF	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
15	0.82991149	0.06159410	62.16	0.0001
66	0.06582631	0.00999737		
81	0.99573780			
P VALUE	STD ERROR	TYPE II SS	F	PROB>F
-0.06491603	0.00150485	0.02156133	21.62	0.0001
-0.00000637	0.00013889	0.00226561	2.27	0.1365
-0.00000031	0.00004527	0.00027288	6.29	0.0146
-0.00000257	0.00001207	0.00061210	4.62	0.0352
-0.00000428	0.00003115	0.00137283	1.38	0.2446
-0.00000000	0.00000000	0.00098239	7.00	0.0102
-0.00000000	0.00000000	0.00224821	40.34	0.0001
-0.00000001	0.00000000	0.00315568	3.16	0.0799
-0.00000001	0.00000000	0.01485635	14.90	0.0003
-0.00000001	0.00000000	0.01156672	11.60	0.0011
-0.00000001	0.00000000	0.01333659	15.38	0.0007
-0.00000000	0.00000000	0.00605324	2.07	0.1577
-0.00000001	0.00000000	0.00567191	5.69	0.0200
-0.00000000	0.00000000	0.00846347	8.49	0.0049
-0.00000000	0.00000000	0.00327509	3.28	0.0745

STEP 15 REGRESSION BY C201 F SQUARE = 0.93508189 C(P) = 9.48481935

	OF	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
REGRESSION	15	0.93109639	0.06207309	63.38	0.0001
ERROR	66	0.06464141	0.00097942		
TOTAL	81	0.99573780			
	R VALUE	STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	-0.07422069	0.00153691	0.02712590	27.70	0.0001
C12	-0.00000000	0.00004216	0.01102193	11.02	0.0013
C13	-0.00000000	0.00001647	0.01376173	16.09	0.0002
C14	-0.00000000	0.00001647	0.01623901	16.58	0.0001
C15	-0.00000000	0.00000000	0.01052522	11.18	0.0014
C16	-0.00000000	0.00000000	0.02146141	21.91	0.0001
C17	-0.00000000	0.00000000	0.02712590	27.70	0.0001
C18	-0.00000000	0.00000000	0.04545521	45.64	0.0001
C19	-0.00000000	0.00000000	0.00951855	9.72	0.0027
C20	-0.00000000	0.00000000	0.03454219	35.27	0.0001
C21	-0.00000000	0.00000000	0.03106015	35.83	0.0001
C22	-0.00000000	0.00000000	0.00423813	6.37	0.0140
C23	-0.00000000	0.00000000	0.02365290	24.15	0.0001
C24	-0.00000000	0.00000000	0.03358280	34.29	0.0001
C25	-0.00000000	0.00000000	0.04609117	46.18	0.0450



STEP 15 DET46 REPLACED BY DET14  
 STATISTICAL ANALYSIS SYSTEM  
 MAXIMUM R-SQUARE IMPROVEMENT FOR DEPENDENT VARIABLE IS  
 F SQUARE = 0.93551673 C(P) = 0.08637593

DE	H VALUE	SUM OF SQUARES	STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	-0.00177019	0.00152112	0.00152112	0.02573678	26.45	0.0001
DET2	-0.00782376	0.00012523	0.00012523	0.01158155	12.32	0.0008
DET3	-0.00043047	0.00004014	0.00004014	0.0004502	18.27	0.0054
DET4	0.00011523	0.00001632	0.00001632	0.00097819	5.12	0.0270
DET5	-0.00006856	0.00001653	0.00001653	0.01664563	17.11	0.0001
DET6	-0.00016885	0.00004876	0.00004876	0.0166609	17.99	0.0009
DET7	-0.00000000	0.00000000	0.00000000	0.0202660	22.64	0.0001
DET8	-0.00000000	0.00000000	0.00000000	0.0510871	55.72	0.0001
DET9	0.00000000	0.00000000	0.00000000	0.0001948	9.58	0.0029
DET10	0.00000000	0.00000000	0.00000000	0.03813003	39.10	0.0001
DET11	-0.00001143	0.00000183	0.00000183	0.03733839	39.10	0.0001
DET12	0.00000000	0.00000000	0.00000000	0.00000000	5.92	0.0177
DET13	-0.00000002	0.00000000	0.00000000	0.02143119	27.90	0.0001
DET14	-0.00000011	0.00000017	0.00000017	0.04016591	41.90	0.0001
DET15	-0.00000004	0.00000002	0.00000002	0.00295044	3.03	0.0863

STEP 15 DET34 REPLACED BY DET12  
 F SQUARE = 0.93716987 C(P) = 7.57159711

DE	H VALUE	SUM OF SQUARES	STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	-0.00150742	0.00150742	0.00150742	0.02964092	31.06	0.0001
DET2	-0.00012146	0.00012146	0.00012146	0.01211167	12.32	0.0008
DET3	-0.00013833	0.00013833	0.00013833	0.01316100	13.82	0.0007
DET4	0.00001546	0.00001546	0.00001546	0.00086633	13.78	0.0050
DET5	-0.00001575	0.00001575	0.00001575	0.01900297	18.99	0.0001
DET6	-0.00001525	0.00001525	0.00001525	0.01357774	14.23	0.0003
DET7	0.00000000	0.00000000	0.00000000	0.02327432	24.35	0.0001
DET8	0.00000000	0.00000000	0.00000000	0.05343216	56.37	0.0001
DET9	0.00000000	0.00000000	0.00000000	0.01067133	11.26	0.0013
DET10	0.00000000	0.00000000	0.00000000	0.03674329	41.93	0.0001
DET11	0.00000000	0.00000000	0.00000000	0.04401506	46.45	0.0001
DET12	0.00000000	0.00000000	0.00000000	0.00772383	8.15	0.0058
DET13	0.00000000	0.00000000	0.00000000	0.00459653	4.85	0.0312
DET14	0.00000001	0.00000001	0.00000001	0.03419426	36.07	0.0001
DET15	-0.00000017	0.00000017	0.00000017	0.04448897	46.93	0.0001

THE ABOVE MODEL IS THE BEST 15 VARIABLE MODEL FOUND.



# MAXIMUM R-SQUARE IMPROVEMENT FOR DEPENDENT VARIABLE GC

WARNING: 119 OBSERVATIONS DELETED DUE TO MISSING VALUES.

STEP 1 VARIABLE DET2 ENTERED

R SQUARE = 0.83221982 C(P) = 7.25317273

REGRESSION	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
ERROR	759.72422981	759.72422981	34.72	0.0006
TOTAL	153.16465908	21.80066558		

R VALUE	STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	4.15139894			
DET2	0.06238128	0.01058660	34.72	0.0006

THE ABOVE MODEL IS THE BEST 1-VARIABLE MODEL FOUND.

STEP 2 VARIABLE CL2 ENTERED

R SQUARE = 0.87760782 C(P) = 5.93843678

REGRESSION	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
ERROR	801.15842918	400.57921459	21.51	0.0018
TOTAL	111.73045971	18.62174328		

R VALUE	STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	2.27238686			
CL2	0.41490107	41.43419937	2.23	0.1864
DET2	0.04037834	97.01100930	5.21	0.0626

THE ABOVE MODEL IS THE BEST 2-VARIABLE MODEL FOUND.

STEP 3 VARIABLE DET3 ENTERED

R SQUARE = 0.93844467 C(P) = 3.49545438

REGRESSION	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
ERROR	856.69570915	285.56523638	25.41	0.0019
TOTAL	56.19317974	11.23863595		

R VALUE	STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	-6.06953409			
CL2	1.70714506	85.15846568	7.58	0.0402
DET2	0.11922981	110.40563379	9.82	0.0258
DET3	-0.05266159	55.53727997	4.94	0.0768

THE ABOVE MODEL IS THE BEST 3-VARIABLE MODEL FOUND.

SAS

18:50 FRIDAY, MAY 25, 1984 66



20:17 MONDAY, JUNE 4, 1984

FLIGHT ADVIS-1790

UNIVARIATE

VARIABLE=CL2

MOMENTS

QUANTILES(DF=4)

EXTREMES

N	128	SUB	128	100% MAX	74.12	997	72.5916	HIGHEST
MEAN	21.4761	SUB	2748.194	75% Q3	20.7175	957	56.4508	58.06
STD DEV	16.2712	VARIANCE	264.751	50% MED	10.27	907	48.436	58.56
SKEWNESS	1.06712	KURTOSIS	0.665448	25% Q1	0.27	101	4.216	60.03
USSES	92655.9	CSS	33023.4	0% MIN	-2.4	57	0.358999	68.85
CV	75.7662	STD MEAN	1.43818			17	-1.9882	74.12
TIMEAL=0	14.9328	PRIM=17	0.0001	RANGE	76.52			
SGN RANK	4.107	PRUN=57	0.0001	Q3-Q1	20.4275			
NUM	128			MODE	11.32			



**VARIABLE=CL2**

FREQUENCY TABLE (CONT.)

VALUE	COUNT	PERCENTS CELL	CUM	VALUE	COUNT	PERCENTS CELL	CUM	VALUE	COUNT	PERCENTS CELL	CUM
22.33	1	0.8	58.0	33.4	1	0.8	81.3	49.89	1	0.8	92.2
22.34	1	0.8	59.4	34.24	1	0.8	82.8	52.65	1	0.8	93.0
22.35	1	0.8	60.9	34.62	1	0.8	83.6	53.71	1	0.8	93.8
22.44	1	0.8	61.7	34.98	1	0.8	84.4	55.39	1	0.8	94.5
22.44	1	0.8	62.5	36.98	1	0.8	85.2	56.35	1	0.8	95.3
22.45	1	0.8	63.3	37.25	1	0.8	86.0	57.15	1	0.8	95.3
22.51	1	0.8	64.1	37.82	1	0.8	86.7	58.06	1	0.8	96.1
22.55	1	0.8	65.0	38.93	1	0.8	87.5	58.56	1	0.8	96.7
22.56	1	0.8	65.9	40.57	1	0.8	88.3	59.23	1	0.8	97.4
22.55	1	0.8	66.7	41.48	1	0.8	89.1	60.03	1	0.8	98.2
22.44	1	0.8	67.2	42.88	1	0.8	90.6	68.82	1	0.8	99.2
22.44	1	0.8	68.0	46.47	1	0.8	91.4	74.12	1	0.8	100.0
24.45	1	0.8	68.8	48.58	1	0.8	92.6				



UNIVARIATE

VARIABLE=DET1

NOBILES

QUANTILES (DEF=4)

EXTREMES

N	116	SUM WGT	116	100% MAX	7321.8	99%	7294.89	HIGHEST	4575.18
MEAN	1544.6	SUM	179174	75% Q3	2023.06	95%	4167.97	LOWEST	-1260.63
STD DEV	1413.15	VARIANCE	1997001	50% MED	1380.88	90%	3131.38		4763.05
SKEWNESS	1.75887	KURTOSIS	5.2418	25% Q1	658.072	10%	-280.695		7088.73
CV	506407324	CSS	229655133	0% MIN	-1260.63	5%	-142.882		7163.56
COV	91.4898	STD MEAN	131.208	RANGE	8582.43	1%	-1219.61		7331.8
TIME AT=0	11.7722	PRIM>T	0.0001	MODE	1364.98				
SGN RANK	3233	PRIM>S	0.0001	MISSING VALUE	502.67				
NUM = 1	116			% COUNT/MISS	9.38				

NORMAL PROBABILITY PLOT

BOXPLOT

#

STFM LEAF

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## UNIVARIATE

VARIABLE=NET1

## FREQUENCY TABLE (CONT.)

VALUE	COUNT	PERCENTS CELL	CUM	VALUE	COUNT	PERCENTS CELL	CUM	VALUE	COUNT	PERCENTS CELL	CUM	VALUE	COUNT	PERCENTS CELL	CUM
1132.04	1	0.9	43.1	1510.22	1	0.9	57.8	1911.04	1	0.9	72.4	2566.72	1	0.9	87.1
1151.97	1	0.9	44.0	1593.17	1	0.9	58.6	1993.31	1	0.9	73.3	2631.11	1	0.9	87.9
1201.84	1	0.9	44.8	1612.24	1	0.9	59.5	1996.38	1	0.9	74.1	2855.65	1	0.9	88.4
1211.21	1	0.9	45.7	1615.24	1	0.9	60.3	2022.30	1	0.9	75.0	3031.21	1	0.9	89.7
1216.14	1	0.9	46.6	1655.01	1	0.9	61.2	2023.29	1	0.9	75.9	3114.28	1	0.9	90.5
1308.82	1	0.9	47.4	1655.01	1	0.9	62.1	2096.92	1	0.9	76.7	3170.50	1	0.9	91.4
1346.34	1	0.9	48.3	1673.17	1	0.9	62.9	2097.83	1	0.9	77.6	3264.85	1	0.9	92.2
1363.12	1	0.9	49.1	1752.37	1	0.9	63.7	2137.73	1	0.9	78.4	3497.21	1	0.9	93.1
1396.64	1	0.9	50.0	1754.51	1	0.9	64.5	2202.73	1	0.9	79.3	3697.51	1	0.9	94.0
1424.33	1	0.9	51.7	1761.81	1	0.9	65.4	2227.84	1	0.9	80.2	3983.43	1	0.9	94.8
1464.33	1	0.9	52.6	1770.97	1	0.9	66.2	2248.68	1	0.9	81.0	4096.12	1	0.9	95.7
1503.37	1	0.9	53.4	1773.73	1	0.9	67.1	2249.25	1	0.9	81.9	4575.18	1	0.9	96.6
1514.46	1	0.9	54.2	1800.89	1	0.9	68.0	2340.21	1	0.9	82.8	4763.05	1	0.9	97.4
1527.15	1	0.9	55.0	1864.41	1	0.9	69.8	2375.86	1	0.9	83.6	7088.13	1	0.9	98.3
1528.91	1	0.9	56.0	1866.72	1	0.9	70.7	2458.61	1	0.9	84.5	7163.56	1	0.9	99.1
				1879.23	1	0.9	71.6	2521.12	1	0.9	85.3	7321.8	1	0.9	100.0







ENGINE AVDS-1790

2017 MONDAY, JUNE 4, 1984 13

UNIVARIATE

VARIABLE=DFI2

FREQUENCY TABLE (CONT.)

VALUE	COUNT	PERCENTS CELL	CUM	VALUE	COUNT	PERCENTS CELL	CUM	VALUE	COUNT	PERCENTS CELL	CUM	VALUE	COUNT	PERCENTS CELL	CUM
121.71	1	0.9	56.0	191.67	1	0.9	67.2	230.63	1	0.9	78.4	352.57	1	0.9	90.5
124.7	1	0.9	56.9	197.56	1	0.9	68.1	231.02	1	0.9	80.2	370.48	1	0.9	91.4
125.81	1	0.9	57.8	201.91	1	0.9	69.0	233.45	1	0.9	81.0	373.29	1	0.9	92.2
144.48	1	0.9	58.6	203.25	1	0.9	69.8	236.27	1	0.9	81.9	375.35	1	0.9	93.1
146.77	1	0.9	59.5	205.34	1	0.9	70.7	240.48	1	0.9	82.8	377.44	1	0.9	94.0
151.53	1	0.9	60.3	208.34	1	0.9	71.6	246.51	1	0.9	83.6	386.93	1	0.9	94.8
161.94	1	0.9	61.2	216.4	1	0.9	72.4	251.56	1	0.9	84.5	394.09	1	0.9	95.7
164.41	1	0.9	62.1	219.87	1	0.9	73.3	258.67	1	0.9	85.3	422.9	1	0.9	96.6
169.13	1	0.9	63.0	220.01	1	0.9	74.1	265.68	1	0.9	86.2	428.14	1	0.9	97.4
170.4	1	0.9	63.8	220.96	1	0.9	75.0	273.76	1	0.9	87.1	437.54	1	0.9	98.3
172.98	1	0.9	64.7	227.0	1	0.9	75.9	298.65	1	0.9	87.8	475.08	1	0.9	99.1
176.45	1	0.9	65.5	228.01	1	0.9	76.7	312.65	1	0.9	88.7	537.48	1	0.9	100.0
188.84	1	0.9	66.4					331.3							



UNIVARIATE

VARIABLE=INFT3

MOMENTS

N	116	SUM WGT	116	QUANTILES(DEF=4)	EXTREMES
MEAN	490.029	SUM	56843.4	100% MAX	1795.67
STD DEV	387.359	VARIANCE	150047	75% Q3	1225.25
SKEWNESS	0.862696	KURTOSIS	0.977544	50% MED	1089.76
USS	45110.00	CSS	17255378	25% Q1	31.586
CV	79.0481	STD MEAN	35.9554	0% MIN	-287.09
T-MEAN=0	13.625	PRURD=1	0.0001	RANGE	2082.76
SEN RANK	3273	PRURD=5	0.0001	Q3-Q1	388.993
NUM = 0	116			MODE	481.01

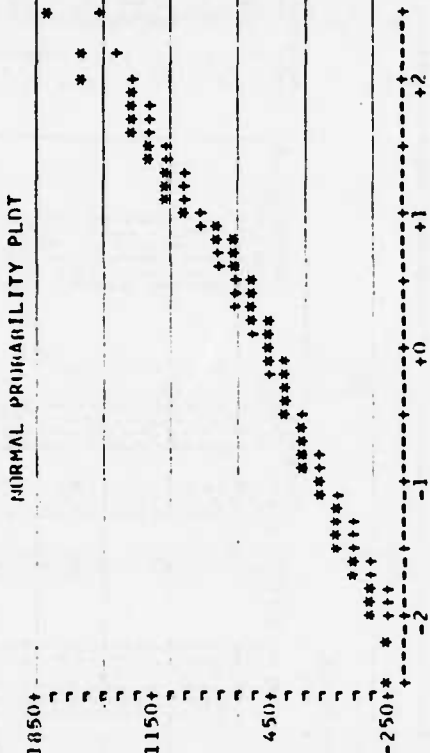
MISSING VALUE COUNT 12  
COUNT/NURS 9.38

STEM LEAF

18	0	#	1	HUXPLOT	1450+
17	0	1	1	0	
16	0	1	1	0	
15	5				
14					
13	1268	4	4	0	1150+
12	0045	4	4		
11	0279	4	4		
10	2346	4	4		
9		1	1		
8	25789	5	5		
7	02234519	6	6		
6	00122233355677	16	16		
5	22333344667089	13	13		
4	01122334455577899	18	18		
3	011233456667777	14	14		
2	34444	5	5		
1	22335519	8	8		
0	750	3	3		
-1	431	3	3		
-2	94	2	2		

MULTIPLY STEM LEAF BY 10\*\*02

NORMAL PROBABILITY PLOT





UNIVARIATE

VARIABLE=DET3

FREQUENCY TABLE

VALUE	COUNT	PERCENTS CELL	CUM	VALUE	COUNT	PERCENTS CELL	CUM	VALUE	COUNT	PERCENTS CELL	CUM	VALUE	COUNT	PERCENTS CELL	CUM
-287.09	1	0.9	0.9	431.01	1	0.9	50.9	650.09	1	0.9	76.7	671.04	1	0.9	77.6
-236.43	1	0.9	1.7	435.24	1	0.9	51.7	671.04	1	0.9	77.6	692.71	1	0.9	78.4
-143.87	1	0.9	2.6	441.11	1	0.9	52.6	692.71	1	0.9	78.4	717.52	1	0.9	80.2
-120.55	1	0.9	3.4	443.93	1	0.9	53.4	717.52	1	0.9	80.2	748.19	1	0.9	81.0
-106.64	1	0.9	4.3	471.01	1	0.9	54.3	748.19	1	0.9	81.0	830.24	1	0.9	82.8
-70.38	1	0.9	5.2	481.01	1	0.9	55.2	830.24	1	0.9	82.8	923.35	1	0.9	84.5
-52.43	1	0.9	6.0	492.65	1	0.9	56.0	923.35	1	0.9	84.5	961.02	1	0.9	86.2
3.43	1	0.9	6.9	495.57	1	0.9	56.9	961.02	1	0.9	86.2	1016.29	1	0.9	88.0
19.80	1	0.9	7.8	502.24	1	0.9	57.8	1016.29	1	0.9	88.0	1068.57	1	0.9	89.7
30.17	1	0.9	8.6	518.17	1	0.9	58.6	1068.57	1	0.9	89.7	1097.19	1	0.9	91.4
27.82	1	0.9	9.5	519.39	1	0.9	59.5	1097.19	1	0.9	91.4	1139.14	1	0.9	93.1
33.22	1	0.9	10.3	522.03	1	0.9	60.3	1139.14	1	0.9	93.1	1151.65	1	0.9	94.0
48.05	1	0.9	11.2	529.15	1	0.9	61.2	1151.65	1	0.9	94.0	1208.61	1	0.9	95.7
59.77	1	0.9	12.1	534.8	1	0.9	62.1	1208.61	1	0.9	95.7	1257.24	1	0.9	97.4
74.45	1	0.9	12.9	545.8	1	0.9	63.0	1257.24	1	0.9	97.4	1303.45	1	0.9	98.3
87.38	1	0.9	13.8	549.1	1	0.9	63.9	1303.45	1	0.9	98.3	1353.67	1	0.9	99.1
130.05	1	0.9	14.5	550.28	1	0.9	64.8	1353.67	1	0.9	99.1	1795.67	1	0.9	100.0
138.65	1	0.9	15.4	557.47	1	0.9	65.7	1795.67	1	0.9	100.0				
160.99	1	0.9	16.2	570.25	1	0.9	66.6								
184.59	1	0.9	17.1	601.51	1	0.9	67.5								
195.89	1	0.9	18.0	617.57	1	0.9	68.4								
206.24	1	0.9	19.7	631.04	1	0.9	69.3								
233.68	1	0.9	20.6	649.73	1	0.9	70.2								
248.24	1	0.9	21.5				71.1								
247.59	1	0.9	22.4				72.0								
		0.9	23.3				72.9								
		0.9	24.2				73.8								
		0.9	25.0				74.7								
		0.9					75.6								







ENGINE AIDS-1790  
UNIVARIATE

VARIABLE=DET4

FREQUENCY TABLE

VALUE	COUNT	PERCENTS CELL	CUM	VALUE	COUNT	PERCENTS CELL	CUM	VALUE	COUNT	PERCENTS CELL	CUM	VALUE	COUNT	PERCENTS CELL	CUM
-496.37	1	0.9	0.9	739.53	1	0.9	25.7	1224.5	1	0.9	50.9	2038.51	1	0.9	76.7
-330.9	1	0.9	1.7	772.07	1	0.9	26.7	1256.13	1	0.9	51.7	2046.05	1	0.9	77.6
-225.16	1	0.9	2.6	828.24	1	0.9	27.6	1287.84	1	0.9	52.6	2050.48	1	0.9	78.4
-133.96	1	0.9	3.4	892.45	1	0.9	28.4	1298.33	1	0.9	53.4	2150.87	1	0.9	79.3
-64.89	1	0.9	4.3	917.60	1	0.9	29.3	1302.43	1	0.9	54.3	2151.68	1	0.9	80.2
-55.13	1	0.9	5.2	919.37	1	0.9	30.2	1316.29	1	0.9	55.2	2271.64	1	0.9	81.0
-53.64	1	0.9	6.0	934.27	1	0.9	31.0	1326.51	1	0.9	56.0	2272.46	1	0.9	81.8
00.82	1	0.9	6.9	957.19	1	0.9	31.8	1351.62	1	0.9	56.8	2319.76	1	0.9	82.6
124.14	1	0.9	7.8	970.15	1	0.9	32.5	1379.66	1	0.9	57.5	2349.38	1	0.9	83.5
170.64	1	0.9	8.5	975.08	1	0.9	33.3	1379.66	1	0.9	58.3	2359.87	1	0.9	84.3
191.69	1	0.9	9.3	1022.80	1	0.9	34.2	1379.66	1	0.9	59.2	2359.87	1	0.9	85.2
198.67	1	0.9	10.2	1022.80	1	0.9	35.2	1379.66	1	0.9	60.2	2359.87	1	0.9	86.1
200.39	1	0.9	11.1	1033.44	1	0.9	36.2	1461.19	1	0.9	61.1	2738.32	1	0.9	87.0
206.49	1	0.9	12.0	1048.87	1	0.9	37.1	1461.19	1	0.9	62.0	2738.32	1	0.9	87.9
208.09	1	0.9	12.9	1066.25	1	0.9	38.0	1473.7	1	0.9	63.0	2811.34	1	0.9	88.7
246.49	1	0.9	13.8	1066.25	1	0.9	39.0	1501.81	1	0.9	64.0	2909.34	1	0.9	89.6
287.21	1	0.9	14.7	1071.18	1	0.9	40.0	1511.15	1	0.9	65.0	3092.02	1	0.9	90.5
408.17	1	0.9	15.5	1078.53	1	0.9	41.2	1521.18	1	0.9	66.4	3163.46	1	0.9	91.4
456.44	1	0.9	16.4	1116.34	1	0.9	42.2	1523.89	1	0.9	67.4	3165.09	1	0.9	92.2
512.13	1	0.9	17.2	1123.93	1	0.9	43.1	1529.99	1	0.9	68.4	3185.74	1	0.9	93.1
541.2	1	0.9	18.0	1142.09	1	0.9	44.0	1551.31	1	0.9	69.4	3258.74	1	0.9	94.0
594.76	1	0.9	18.7	1147.09	1	0.9	44.8	1564.23	1	0.9	70.4	3262.66	1	0.9	94.8
620.37	1	0.9	19.6	1169.95	1	0.9	45.7	1670.29	1	0.9	71.4	3451.32	1	0.9	95.7
644.41	1	0.9	20.4	1175.4	1	0.9	46.6	1705.99	1	0.9	72.4	3506.03	1	0.9	96.6
664.16	1	0.9	21.3	1180.44	1	0.9	47.3	1740.37	1	0.9	73.3	3552.27	1	0.9	97.5
690.06	1	0.9	22.1	1180.44	1	0.9	48.1	1805.37	1	0.9	74.1	3917.9	1	0.9	98.4
717.85	1	0.9	23.0	1192.72	1	0.9	49.0	1918.31	1	0.9	75.0	4026.3	1	0.9	99.3
		0.9	25.0	1209.16	1	0.9	50.0	2032.05	1	0.9	75.0			0.9	100.0



UNIVARIATE

VARIABLE=FD1

MOMENTS

N 116  
 MEAN 2.98931  
 STD DEV 3.70181  
 SKEWNESS 0.300685  
 KURTOSIS 2.612.86  
 USS 12.5.81  
 CV 8.69908  
 TMEAD=0  
 SGN RANK 2599  
 NIN = 0

QUANTILES (N=4)

100% MAX 12.82  
 75% Q3 5.045  
 50% MED 2.715  
 25% Q1 -0.33  
 0% MIN -5.79  
 RANGE 18.61  
 Q3-Q1 4.715  
 MODE -0.36

EXTRMFMS

LOWEST -5.79  
 -5.49  
 -5.38  
 -4.31  
 -3.44  
 HIGHEST 10.91  
 11.74  
 12.11  
 12.25  
 12.82

MISSING VALUE  
 COUNT 12  
 % COUNT/NUMS 9.38

STEM LEAF

12 12H  
 11 9  
 10 9  
 9 0  
 8 012457  
 7 035679  
 6 1357  
 5 0147889  
 4 11133355679  
 3 012236777889  
 2 00011233455577899  
 1 0011155669  
 0 1223447789  
 -0 998554442100  
 -1 985511  
 -2 4  
 -3 5  
 -4 3  
 -5 854

BOXPLOT

12.5+  
 3.5+  
 -5.5+  
 12  
 9.38

NORMAL PROBABILITY PLOT

12  
 9.38

FREQUENCY TAIL

VALUE	COUNT	PERCENTS	CUM
-5.79	1	0.9	0.9
-5.49	1	0.9	1.7
-5.38	1	0.9	2.6
-4.31	1	0.9	3.4
-3.44	1	0.9	4.3
-2.6	1	0.9	5.2
-1.92	1	0.9	6.0
-1.81	1	0.9	6.9
-1.74	1	0.9	7.8
-1.57	1	0.9	8.6
-1.13	1	0.9	9.5

VALUE	COUNT	PERCENTS	CUM
-1.08	1	0.9	10.3
-0.89	1	0.9	11.2
-0.79	1	0.9	12.1
-0.46	1	0.9	13.0
-0.46	1	0.9	13.9
-0.37	1	0.9	14.7
-0.36	1	0.9	15.5
-0.12	1	0.9	16.4
-0.12	1	0.9	17.3
-0.12	1	0.9	18.1
-0.12	1	0.9	19.0
-0.12	1	0.9	19.8

VALUE	COUNT	PERCENTS	CUM
0.93	1	0.9	20.7
1.04	1	0.9	21.6
1.09	1	0.9	22.4
1.13	1	0.9	23.3
1.56	1	0.9	24.1
1.58	1	0.9	25.0
1.91	1	0.9	25.9
1.98	1	0.9	26.7
2.01	1	0.9	27.6
2.01	1	0.9	28.4
2.01	1	0.9	29.3



UNIVARIATE

VARIABLE=FD1

FREQUENCY TABLE (CHIT.1)

VALUE	COUNT	PERCENTS CELL	CUM	VALUE	COUNT	PERCENTS CELL	CUM	VALUE	COUNT	PERCENTS CELL	CUM	VALUE	COUNT	PERCENTS CELL	CUM
2.04	1	0.9	41.4	4.61	1	0.9	57.8	7.51	1	0.9	87.1	10.91	1	0.9	98.0
2.12	1	0.9	42.2	4.72	1	0.9	58.6	7.63	1	0.9	87.9	11.74	1	0.9	98.9
2.19	1	0.9	43.1	4.86	1	0.9	59.5	7.73	1	0.9	88.8	12.25	1	0.9	99.8
2.27	1	0.9	43.9	4.97	1	0.9	60.3	7.88	1	0.9	89.7	12.82	1	0.9	100.0
2.31	1	0.9	44.8	5.07	1	0.9	61.2	8.01	1	0.9	90.6				
2.44	1	0.9	45.7	5.17	1	0.9	62.1	8.07	1	0.9	91.5				
2.46	1	0.9	46.6	5.27	1	0.9	62.9	8.24	1	0.9	92.4				
2.54	1	0.9	47.5	5.37	1	0.9	63.8	8.45	1	0.9	93.3				
2.57	1	0.9	48.4	5.47	1	0.9	64.7	8.66	1	0.9	94.2				
2.73	1	0.9	49.3	5.57	1	0.9	65.5	9.03	1	0.9	95.1				
2.86	1	0.9	50.2	5.67	1	0.9	66.4	10.91	1	0.9	96.0				
2.94	1	0.9	51.1	5.77	1	0.9	67.2	11.74	1	0.9	96.9				
3.03	1	0.9	52.0	5.89	1	0.9	68.1	12.25	1	0.9	97.8				
3.07	1	0.9	52.9	6.03	1	0.9	69.0			0.9	98.7				
3.16	2	1.7	53.8	6.13	1	0.9	70.7			0.9	99.6				
				6.24	1	0.9	71.6			0.9	100.0				
				6.34	1	0.9									
				6.46	1	0.9									
				6.57	1	0.9									
				6.67	1	0.9									
				6.77	1	0.9									
				6.87	1	0.9									
				6.97	1	0.9									
				7.07	1	0.9									
				7.17	1	0.9									
				7.27	1	0.9									
				7.37	1	0.9									
				7.47	1	0.9									
				7.57	1	0.9									
				7.67	1	0.9									
				7.77	1	0.9									
				7.87	1	0.9									
				7.97	1	0.9									
				8.07	1	0.9									
				8.17	1	0.9									
				8.27	1	0.9									
				8.37	1	0.9									
				8.47	1	0.9									
				8.57	1	0.9									
				8.67	1	0.9									
				8.77	1	0.9									
				8.87	1	0.9									
				8.97	1	0.9									
				9.07	1	0.9									
				9.17	1	0.9									
				9.27	1	0.9									
				9.37	1	0.9									
				9.47	1	0.9									
				9.57	1	0.9									
				9.67	1	0.9									
				9.77	1	0.9									
				9.87	1	0.9									
				9.97	1	0.9									
				10.07	1	0.9									
				10.17	1	0.9									
				10.27	1	0.9									
				10.37	1	0.9									
				10.47	1	0.9									
				10.57	1	0.9									
				10.67	1	0.9									
				10.77	1	0.9									
				10.87	1	0.9									
				10.97	1	0.9									
				11.07	1	0.9									
				11.17	1	0.9									
				11.27	1	0.9									
				11.37	1	0.9									
				11.47	1	0.9									
				11.57	1	0.9									
				11.67	1	0.9									
				11.77	1	0.9									
				11.87	1	0.9									
				11.97	1	0.9									
				12.07	1	0.9									
				12.17	1	0.9									
				12.27	1	0.9									
				12.37	1	0.9									
				12.47	1	0.9									
				12.57	1	0.9									
				12.67	1	0.9									
				12.77	1	0.9									
				12.87	1	0.9									
				12.97	1	0.9									
				13.07	1	0.9									
				13.17	1	0.9									
				13.27	1	0.9									
				13.37	1	0.9									
				13.47	1	0.9									
				13.57	1	0.9									
				13.67	1	0.9									
				13.77	1	0.9									
				13.87	1	0.9									
				13.97	1	0.9									
				14.07	1	0.9									
				14.17	1	0.9									
				14.27	1	0.9									
				14.37	1	0.9									
				14.47	1	0.9									
				14.57	1	0.9									
				14.67	1	0.9									
				14.77	1	0.9									
				14.87	1	0.9									
				14.97	1	0.9									
				15.07	1	0.9									
				15.17	1	0.9									
				15.27	1	0.9									
				15.37	1	0.9									
				15.47	1	0.9									
				15.57	1	0.9									
				15.67	1	0.9									
				15.77	1	0.9									
				15.87	1	0.9									
				15.97	1	0.9									
				16.07	1	0.9									
				16.17	1	0.9									
				16.27	1	0.9									
				16.37	1	0.9									
				16.47	1	0.9									
				16.57	1	0.9									
				16.67	1	0.9									
				16.77	1	0.9									
				16.87	1	0.9									
				16.97	1	0.9									
				17.07	1	0.9									
				17.17	1	0.9									
				17.27	1	0.9									
				17.37	1	0.9									
				17.47	1	0.9									
				17.57	1	0.9									
				17.67	1	0.9									
				17.77	1	0.9									
				17.87	1	0.9									
				17.97	1	0.9									
				18.07	1	0.9									
				18.17	1	0.9									
				18.27	1	0.9									
				18.37	1	0.9									
				18.47	1	0.9									
				18.57	1	0.9									
				1											



UNIVARIATE

VARIABLE=FD1

FREQUENCY TABLE (CONT.)

VALUE	COUNT	PERCENTS CELL	CUM	VALUE	COUNT	PERCENTS CELL	CUM	VALUE	COUNT	PERCENTS CELL	CUM	VALUE	COUNT	PERCENTS CELL	CUM
2.04	1	0.9	41.4	3.32	1	0.9	57.8	4.61	1	0.9	72.4	7.51	1	0.9	87.1
2.12	1	0.9	42.3	3.58	1	0.9	58.6	4.72	1	0.9	73.3	7.63	1	0.9	87.9
2.19	1	0.9	43.1	3.66	1	0.9	59.5	4.89	1	0.9	74.1	7.73	1	0.9	88.8
2.27	1	0.9	44.0	3.72	1	0.9	60.3	4.97	1	0.9	75.0	7.88	1	0.9	89.7
2.31	1	0.9	44.8	3.75	1	0.9	61.2	5.07	1	0.9	75.9	8.01	1	0.9	90.5
2.44	1	0.9	45.7	3.77	1	0.9	62.1	5.47	1	0.9	76.7	8.07	1	0.9	91.5
2.51	2	1.7	46.6	3.81	1	0.9	63.0	5.79	1	0.9	77.6	8.24	1	0.9	92.2
2.54	1	0.9	47.3	3.88	1	0.9	63.7	5.79	1	0.9	78.4	8.43	1	0.9	93.1
2.57	1	0.9	48.1	4.08	1	0.9	64.5	5.79	1	0.9	79.3	8.43	1	0.9	94.0
2.63	1	0.9	49.0	4.09	1	0.9	65.4	5.89	1	0.9	80.2	8.66	1	0.9	94.8
2.67	1	0.9	50.0	4.21	1	0.9	66.2	6.13	1	0.9	81.0	9.03	1	0.9	95.7
2.82	1	0.9	50.7	4.27	1	0.9	67.1	6.34	1	0.9	81.8	10.91	1	0.9	96.6
2.86	1	0.9	51.6	4.32	1	0.9	68.1	6.46	1	0.9	82.6	11.74	1	0.9	97.4
3.04	1	0.9	52.3	4.35	1	0.9	69.0	6.49	1	0.9	83.5	12.25	1	0.9	98.3
3.07	1	0.9	53.2	4.49	1	0.9	69.8	7.02	1	0.9	84.5	12.82	1	0.9	99.1
3.16	2	1.7	54.9	4.55	1	0.9	70.7	7.34	1	0.9	85.3			0.9	100.0
			56.9				71.6				86.2				



UNIVARIATE

VARIABLE=FD2

MOMENTS

N 115  
 MEAN 2.41664  
 STD DEV 4.09494  
 SKEWNESS 1.9728  
 KURTOSIS 2.8312  
 USS 169.462  
 CV MEAN 6.32815  
 SGN RANK 451.42  
 NUM = 0

QUANTILES(UPF=4)

100% MAX 17.97  
 75% Q3 3.99  
 50% MED 0  
 25% Q1 0  
 0% MIN 0  
 RANGE 17.97  
 Q3-Q1 3.99  
 MODE 0

EXTREMES

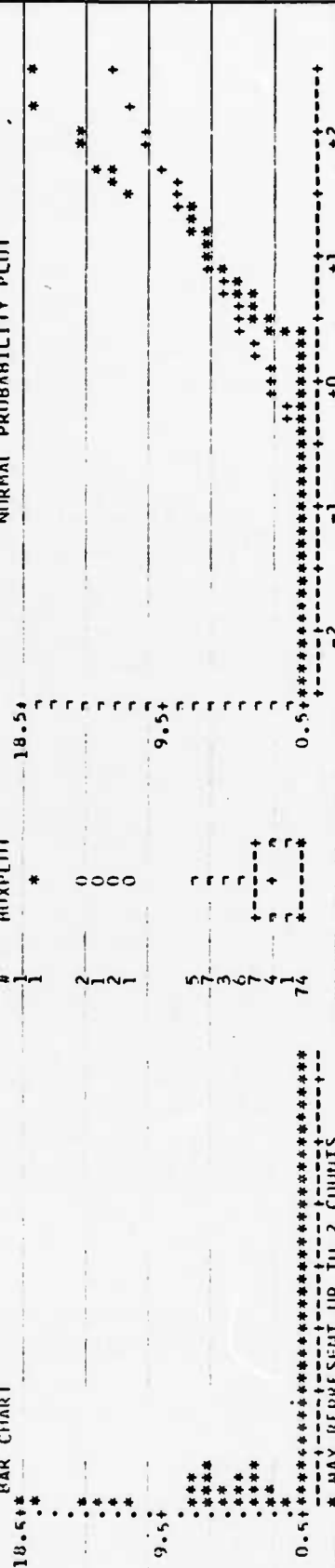
HIGHEST 17.8484  
 LOWEST 13.112  
 13.8  
 14.3  
 14.81  
 17.31  
 17.97

MISSING VALUE COUNT 13  
 % COUNT/NOHS 10.16

BAR CHART

HUXPLUT

NORMAL PROBABILITY PLOT



\* MAY REPRESENT UP TO 2 COUNTS

FREQUENCY TABLE

VALUE	COUNT	PERCENTS	CELL	CUM	VALUE	COUNT	PERCENTS	CELL	CUM
0.35	73	63.5	63.5	63.5	7.66	1	0.9	93.0	93.0
1.37	1	0.9	64.5	64.5	11.54	1	0.9	93.9	93.9
2.37	1	0.9	65.2	65.2	12.54	1	0.9	94.8	94.8
2.63	1	0.9	66.1	66.1	13.54	1	0.9	95.7	95.7
2.77	1	0.9	67.0	67.0	14.54	1	0.9	96.5	96.5
2.94	1	0.9	67.8	67.8	15.54	1	0.9	97.4	97.4
3.1	1	0.9	68.7	68.7	16.54	1	0.9	98.3	98.3
3.5	1	0.9	69.6	69.6	17.54	1	0.9	99.1	99.1
3.64	1	0.9	70.4	70.4					
		0.9	71.3	71.3					
		0.9	72.2	72.2					







## UNIVARIATE

VARIABLE=FD13

## STATISTICS

MEAN 116  
 STD DEV 395.966  
 SKEWNESS 1.03646  
 KURTOSIS 3656963  
 USS 100.00  
 STD MEAN 10.6658  
 PRUNTS-T 3116  
 PRIORS-J 116

## QUANTILES(DEF=4)

100% MAX 1525.04  
 75% Q3 538.18  
 50% MED 297.605  
 25% Q1 121.2  
 0% MIN -370.24  
 RANGE 1895.28  
 Q3-Q1 416.98  
 MODE 121.8

## EXTREMES

1524.23  
 1413.31  
 1008.74  
 30.7399  
 -110.865  
 -357.104

MISSING VALUE  
 COUNT 12  
 % COUNT/NONS 9.38

## BOXPLOT

#

3

3

4

1

3

2

5

7

13

13

17

11

4

4

1

## STEM LEAF

15 023

14 134

13

12 0489

11 5

10 679

9 07

8 03447

7 023569

6 0023469

5 227355777888

4 00011346607

3 0001111336455708

2 0001122223345788

1 02344566788

0 9972

-1 8541

-2 9

-3 7

## NORMAL PROBABILITY PLOT

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## MULTIPLY STEM LEAF BY 10\*\*02

## FREQUENCY TABLE

VALUE	COUNT	PERCENTS	VALUE	COUNT	PERCENTS	VALUE	COUNT	PERCENTS
-370.24	1	0.9	79.59	1	0.9	127.54	1	0.9
-292.67	1	0.9	95.14	1	0.9	134.23	1	0.9
-184.61	1	0.9	96.97	1	0.9	141.66	1	0.9
-138.94	1	0.9	103.66	1	0.9	150.6	1	0.9
-105.91	1	0.9	107.12	1	0.9	167.38	1	0.9
-92.16	1	0.9	112.31	1	0.9	179.70	1	0.9
-88.45	1	0.9	116.31	1	0.9	196.96	1	0.9
-66.21	1	0.9	120.42	1	0.9	200.12	1	0.9
-17.9	1	0.9	121.8	2	1.7			



VARIABLE=F013

FREQUENCY TABLE (CONT.)

VALUE	COUNT	PERCENTS CELL	CUM	VALUE	COUNT	PERCENTS CELL	CUM	VALUE	COUNT	PERCENTS CELL	CUM	VALUE	COUNT	PERCENTS CELL	CUM
205.2	1	0.9	36.2	313.1	1	0.9	52.6	475.59	1	0.9	69.0	736.82	1	0.9	85.3
208.86	1	0.9	37.1	326.12	1	0.9	53.4	478.16	1	0.9	69.8	772.63	1	0.9	86.2
213.79	1	0.9	37.9	328.97	1	0.9	54.3	480.02	1	0.9	70.7	802.86	1	0.9	87.1
214.01	1	0.9	38.9	342.97	1	0.9	55.2	496.74	1	0.9	71.6	865.33	1	0.9	88.8
214.49	1	0.9	39.7	356.17	1	0.9	56.0	500.43	1	0.9	72.4	959.52	1	0.9	89.7
221.3	1	0.9	40.5	359.51	1	0.9	56.9	519.38	1	0.9	73.3	968.25	1	0.9	90.5
226.04	1	0.9	41.4	362.79	1	0.9	57.8	529.32	1	0.9	74.1	989.83	1	0.9	91.4
233.08	1	0.9	42.2	364.62	1	0.9	58.5	531.1	1	0.9	75.0	1052.86	1	0.9	92.2
242.82	1	0.9	43.1	366.46	1	0.9	59.5	549.79	1	0.9	76.7	1139.86	1	0.9	93.1
249.47	1	0.9	44.0	417.4	1	0.9	61.2	589.79	1	0.9	77.6	1176.03	1	0.9	94.0
251.35	1	0.9	45.7	422.87	1	0.9	62.1	603.29	1	0.9	78.3	1193.87	1	0.9	94.8
257.02	1	0.9	46.6	433.75	1	0.9	63.0	625.66	1	0.9	79.3	1432.77	1	0.9	95.7
277.77	1	0.9	47.4	445.4	1	0.9	63.9	645.9	1	0.9	80.2	1444.52	1	0.9	96.6
281.77	1	0.9	48.3	447.67	1	0.9	64.7	658.42	1	0.9	81.0	1503.18	1	0.9	97.4
295.07	1	0.9	49.1	450.71	1	0.9	65.5	694.45	1	0.9	81.9	1520.04	1	0.9	98.3
298.01	1	0.9	50.0	468.45	1	0.9	66.4	703.04	1	0.9	82.8	1525.04	1	0.9	99.1
299.2	1	0.9	50.9	473.1	1	0.9	67.2	730.29	1	0.9	83.6				
31.04	1	0.9	51.7	474.06	1	0.9	68.1	735.68	1	0.9	84.5				







UNIVARIATE

VARIABLE=7N1

FREQUENCY TABLE (CONT.)

VALUE	COUNT	PERCENTS CELL	CUM	VALUE	COUNT	PERCENTS CELL	CUM	VALUE	COUNT	PERCENTS CELL	CUM	VALUE	COUNT	PERCENTS CELL	CUM
0.17	1	0.9	60.0	0.49	1	0.9	71.3	1.63	1	0.9	81.7	1.97	1	0.9	91.3
0.19	1	0.9	60.9	0.51	1	0.9	72.2	2.01	1	0.9	82.6	2.12	1	0.9	92.2
0.21	1	0.9	61.7	0.53	1	0.9	73.0	2.15	1	0.9	83.5	2.25	1	0.9	93.0
0.22	1	1.7	63.5	0.63	1	0.9	73.9	2.29	1	0.9	84.3	2.34	1	0.9	93.9
0.24	1	0.9	64.3	0.69	1	0.9	74.8	2.38	1	0.9	85.2	2.48	1	1.7	95.7
0.25	1	0.9	65.2	0.79	1	0.9	75.7	2.58	1	0.9	86.1	2.58	1	0.9	96.5
0.26	1	0.9	66.0	0.84	1	0.9	76.5	2.58	1	0.9	87.0	2.58	1	0.9	97.4
0.28	1	1.7	67.8	0.85	1	0.9	77.4	3.05	1	0.9	87.8	3.05	1	0.9	98.3
0.31	1	0.9	68.7	0.86	1	0.9	78.3	3.48	1	0.9	88.7	3.48	1	0.9	99.1
0.43	1	0.9	69.6	0.87	1	0.9	79.1				89.6				100.0
		0.9	70.4	0.94	2	1.7	80.9				90.4				











UNIVARIATE

VARIABLE=FE

NUMERICS

	12H	SUM	WGT	100% MAX	QUANTILES (DIFF=4)	EXTREMES
N	212	487	128	867	99%	HIGHEST
MEAN	142.497	27168	27168	27675	95%	LOWEST
STD DEV	1.63462	20440.4	75% Q3	182.13	90%	
SKEWNESS	8375076	394328	50% MED	113.13	10%	
USS	67.2049	2595926	25% Q1	9	5%	
CV	16.8146	12.6369	0% MIN	1	1%	
TIMEAN=0	412H	0.0001	RANGE	85H		
SGN RANK	12H	0.0001	Q3-Q1	163		
NUM = 0			MODE	117		

NORMAL PROBABILITY PLOT

STEM	LEAF	#	HUXPLOT	875+
0	7	1	*	
1	8			
2	7			
3	7			
4	69	2	0	
5	34	1	0	
6	34	2		
7	569	3		
8	013	4		
9	5678	10		
10	5678	10		
11	5678	10		
12	5678	10		
13	5678	10		
14	5678	10		
15	5678	10		
16	5678	10		
17	5678	10		
18	5678	10		
19	5678	10		
20	5678	10		
21	5678	10		
22	5678	10		
23	5678	10		
24	5678	10		
25	5678	10		
26	5678	10		
27	5678	10		
28	5678	10		
29	5678	10		
30	5678	10		

H-73

FREQUENCY TABLE

VALUE	COUNT	PERCENTS	CELL	CUM	VALUE	COUNT	PERCENTS	CELL	CUM
9	1	0.8	0.8	0.8	173	2	1.6	1.6	46.9
15	1	0.8	0.8	1.6	175	2	1.6	3.2	48.4
25	1	0.8	0.8	2.4	181	2	1.6	4.8	50.0
34	1	0.8	0.8	3.2	184	2	1.6	6.4	51.6
37	1	0.8	0.8	4.0	193	1	0.8	7.2	52.4
40	1	0.8	0.8	4.8	195	1	0.8	8.0	53.2
53	1	0.8	0.8	5.6	196	1	0.8	8.8	54.0
58	1	0.8	0.8	6.4	199	1	0.8	9.6	54.8
60	1	0.8	0.8	7.2	200	1	0.8	10.4	55.6
65	1	0.8	0.8	8.0	204	1	0.8	11.2	56.4
67	1	0.8	0.8	8.8	205	1	0.8	12.0	57.2
69	1	0.8	0.8	9.6	210	1	0.8	12.8	58.0
73	1	0.8	0.8	10.4	211	1	0.8	13.6	58.8
75	1	0.8	0.8	11.2	213	1	0.8	14.4	59.6
76	1	0.8	0.8	12.0	217	1	0.8	15.2	60.4
81	1	0.8	0.8	12.8	221	1	0.8	16.0	61.2

MULTIPLY STEM, LEAF BY 10\*\*+02



## UNIVARIATE

VARIABLE F=FE

## FREQUENCY TABLE (CONT.)

VALUE	COUNT	PERCENTS CELL	CUM	VALUE	COUNT	PERCENTS CELL	CUM	VALUE	COUNT	PERCENTS CELL	CUM	VALUE	COUNT	PERCENTS CELL	CUM
224	1	0.8	61.7	257	1	0.8	72.7	407	1	0.8	92.2	427	1	0.8	93.0
225	1	0.8	62.5	263	1	0.8	73.4	427	1	0.8	93.8	453	1	0.8	94.5
229	3	2.3	64.8	275	1	0.8	74.2	453	1	0.8	94.5	463	1	0.8	95.3
231	1	0.8	65.6	276	1	0.8	75.0	463	1	0.8	95.3	480	1	0.8	96.1
233	2	1.6	67.2	277	1	0.8	75.8	480	1	0.8	96.1	529	1	0.8	96.9
237	1	0.8	68.0	281	1	0.8	76.5	529	1	0.8	96.9	541	1	0.8	97.7
238	1	0.8	68.8	285	1	0.8	77.3	541	1	0.8	97.7	557	1	0.8	98.4
245	1	0.8	69.5	289	1	0.8	78.1	557	1	0.8	98.4	695	1	0.8	99.2
247	1	0.8	70.3	291	1	0.8	78.9	695	1	0.8	99.2	867	1	0.8	100.0
249	1	0.8	71.1	293	1	0.8	79.7								
254	1	0.8	71.9	303	1	0.8	80.5								



UNIVARIATE

VARIABLE=VTS

MOMENTS

N 128  
 MEAN 258.609  
 STD DEV 89.3916  
 SKEWNESS 0.16062  
 KURTOSIS 9575326  
 CV 34.5663  
 TIME MEAN 32.7405  
 STD MEAN 4.128  
 CORR2-T 128  
 CORR2-S 128  
 CORR2-T 128  
 CORR2-S 128

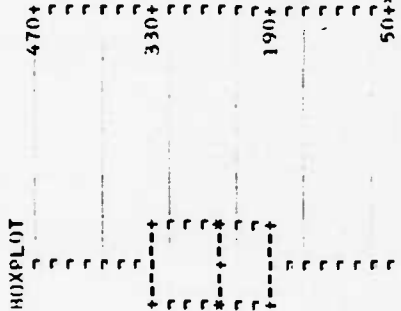
QUANTILES(DIFF=4)

100% MAX 475  
 75% Q3 320.75  
 50% MED 243.5  
 25% Q1 194.25  
 0% MIN 57  
 RANGE 418  
 Q3-Q1 126.5  
 MODE 266

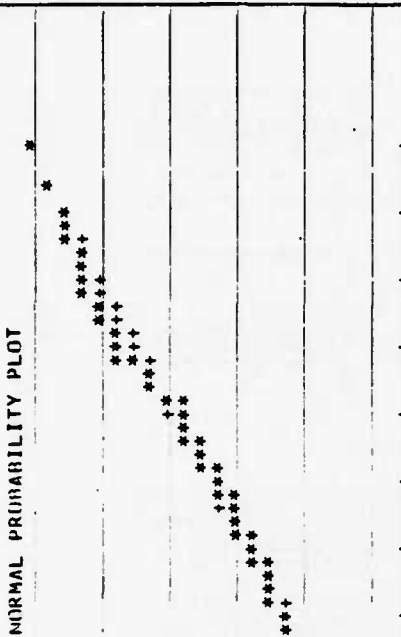
EXTREMES

LOWEST 470.36  
 HIGHEST 429  
 431  
 434  
 459  
 475

HISTOGRAM



NORMAL PROBABILITY PLOT



FREQUENCY TABLE

VALUE	COUNT	PERCENTS	CUM
187	1	0.8	0.8
188	1	0.8	1.6
189	1	0.8	2.4
190	1	0.8	3.2
191	1	0.8	4.0
192	1	0.8	4.8
193	1	0.8	5.6
194	1	0.8	6.4
195	1	0.8	7.2
196	1	0.8	8.0
197	1	0.8	8.8
198	1	0.8	9.6
199	1	0.8	10.4
200	1	0.8	11.2
201	1	0.8	12.0
202	1	0.8	12.8
203	1	0.8	13.6
204	1	0.8	14.4
205	1	0.8	15.2
206	1	0.8	16.0
207	1	0.8	16.8
208	1	0.8	17.6
209	1	0.8	18.4
210	1	0.8	19.2
211	1	0.8	20.0
212	1	0.8	20.8



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ELIGIBLE AVUS-1790

UNIVARIATE

VARIABLE=VIS

FREQUENCY TABLE (CONT.)

VALUE	COUNT	PERCENTS CELL	CUM	VALUE	COUNT	PERCENTS CELL	CUM	VALUE	COUNT	PERCENTS CELL	CUM	VALUE	COUNT	PERCENTS CELL	CUM
240	1	0.8	47.7	279	1	0.8	62.5	331	1	0.8	77.3	390	1	0.8	91.4
242	3	2.3	50.0	280	2	1.6	64.1	334	1	0.8	78.1	394	1	0.8	93.2
244	1	0.8	50.8	287	1	0.8	64.9	335	1	0.8	78.9	400	1	0.8	93.0
248	1	0.8	51.6	291	1	0.8	65.6	336	2	1.6	80.5	407	1	0.8	93.8
250	1	0.8	52.3	293	1	0.8	66.4	338	1	0.8	81.3	408	2	1.6	95.3
254	1	0.8	53.1	296	4	3.1	69.5	342	1	0.8	82.0	418	1	0.8	96.1
256	2	1.6	54.7	297	1	0.8	71.4	360	2	1.6	83.6	429	1	0.8	96.9
258	1	0.8	55.5	299	1	0.8	72.2	366	1	0.8	84.4	431	1	0.8	97.7
263	1	0.8	56.3	304	1	0.8	73.0	371	1	0.8	85.2	434	1	0.8	98.4
264	2	1.6	57.8	306	1	0.8	73.7	372	1	0.8	86.0	439	1	0.8	99.2
272	1	0.8	58.6	311	1	0.8	74.5	378	1	0.8	86.7	459	1	0.8	100.0
274	1	0.8	59.4	320	1	0.8	75.3	380	1	0.8	87.5	475	1	0.8	100.0
275	2	1.6	60.9	321	1	0.8	76.0	383	3	2.3	90.6				
276	1	0.8	61.7	326	1	0.8	76.8								







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UNIVARIATE

FREQUENCY TABLE (CONT.)

PERCENTS			PERCENTS			PERCENTS			PERCENTS		
VALUE	COUNT	CUM	VALUE	COUNT	CUM	VALUE	COUNT	CUM	VALUE	COUNT	CUM
4.17	1	0.8	4.52	1	0.8	5.22	1	0.8	7.24	1	0.8
4.33	1	0.8	4.6	1	0.8	6.15	1	0.8			
		95.3			96.9			98.4			100.0
		96.1			97.7			99.2			



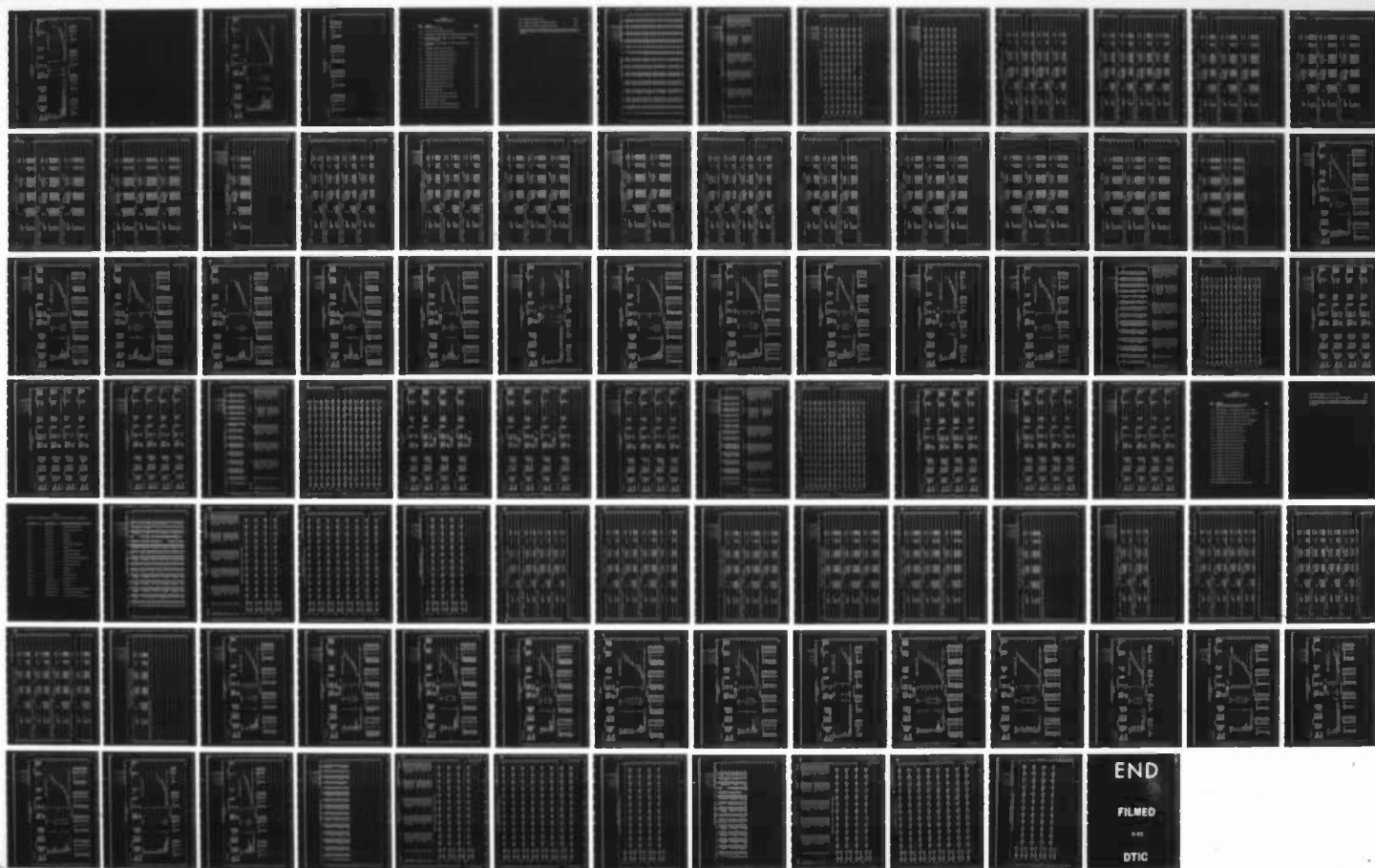
AD-A152 994

EVALUATION OF USED CRANKCASE OILS USING COMPUTERIZED  
INFRARED SPECTROMETR. (U) JOINT OIL ANALYSIS PROGRAM  
PENSACOLA FL TECHNICAL SUPPORT CEN. B B MCCA ET AL.  
JUN 84 JOAP-TSC-84-01-APP F/G 20/6

5/5

UNCLASSIFIED

NL





## UNIVERSITÄT

[illegible]







2017 MONDAY, JUNE 4, 1984

ENGINE AVUS-1730

UNIVARIATE

VARIABLE=CUR

MOMENTS

N 101  
MEAN 8.41089  
STD DEV 3.78478  
SKEWNESS 1.252  
KURTOSIS 44.9906  
CV 22.3338  
T-MEAN=0  
SGN RANK 2575.5  
NUM = 0

SUM WGTs  
SUM 859.5  
VARIANCE 14.3246  
KURTOSIS 3.69493  
CSS 1432.46  
STD MEAN 0.3766  
PRHS-T 0.0001  
PRHS-S 0.0001

100% MAX 26  
75% Q3 10.65  
50% MED 8  
25% Q1 5.15  
0% MIN 3  
RANGE 23  
Q3-Q1 5.5  
MODE 5.4

QUANTILES(DEF=4)  
99% 26  
95% 10.65  
90% 8  
10% 5.15  
5% 3  
1% 3.82  
0% 3

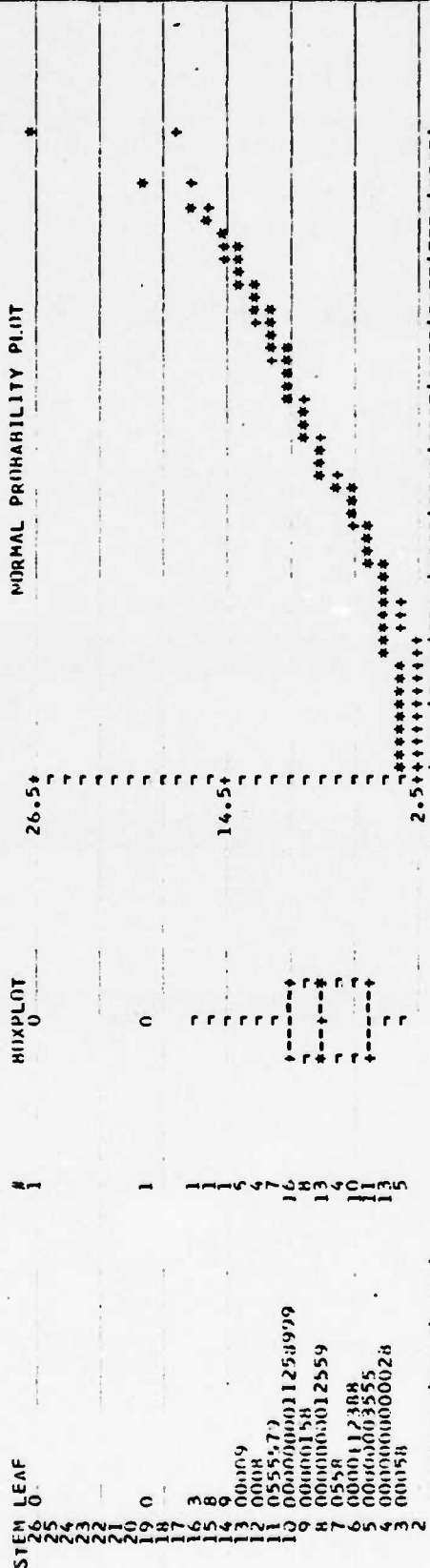
EXTREMES

LOWEST 3  
HIGHEST 3  
14.59  
15.8  
16.3  
19  
26

MISSING VALUE  
COUNT 27  
COUNT/HOBS 21.69

HUXPLOT 0

STEM LEAF





## UNIVARIATE

VARIABLE=COB

## FREQUENCY TABLE

VALUE	COUNT	PERCENTS CFL	CUM	VALUE	COUNT	PERCENTS CFL	CUM	VALUE	COUNT	PERCENTS CFL	CUM	VALUE	COUNT	PERCENTS CFL	CUM
3	1	3.0	3.0	6.3	1	1.0	36.6	9.5	1	1.0	62.4	12	3	3.0	89.1
3.5	1	1.0	4.0	6.9	2	2.0	38.6	9.8	2	2.0	63.4	12.8	4	4.0	93.1
4	1	1.0	5.0	7.5	2	2.0	39.6	10.1	4	2.0	65.4	13.1	1	1.0	94.1
4.2	1	1.0	6.0	7.8	1	1.0	41.6	10.2	5	1.0	66.4	13.9	1	1.0	95.0
4.4	1	1.0	7.0	8.1	1	1.0	42.6	10.5	6	1.0	67.4	14.9	1	1.0	96.0
5	1	1.0	8.0	8.2	1	1.0	43.6	10.8	7	1.0	68.4	15.8	1	1.0	97.0
5.3	1	1.0	9.0	8.5	1	1.0	44.6	11.1	8	1.0	69.4	16.1	1	1.0	98.0
6	1	1.0	10.0	8.9	1	1.0	45.6	11.5	9	1.0	70.4	26	1	1.0	100.0
6.1	1	1.0		9.1	1	1.0	46.6	11.7							
6.2								11.9							



# APPENDIX I PROPANE FUELED ENGINES

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\* These models were all developed early in the study and are based on a slightly different data collection methodology than that outlined in Table 1.



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FORD 6 CYLINDER (PROPANE)

URS	CL2	DET1	DET2	DET3	DET4	FD1	FD2	MIL	FE	VIS	TAN	TS	CNB
1	0.00	196.20	0.00	0.00	0.00	0.00	0.00	0	50	119.00	0.09	0.40	11.20
2	1.53	414.45	-389.00	237.03	-902.62	0.99	2.70	20	21	103.00	3.73	3.20	14.60
3	1.49	1019.45	-469.00	402.93	1130.44	-0.90	0.00	119	325	137.00	3.98	6.00	19.60
4	0.62	1301.10	-865.00	237.99	-356.71	6.71	0.00	119	19	138.00	3.20	0.40	33.30
5	-0.29	-109.18	-100.00	26.76	-259.77	-1.15	0.00	225	19	128.00	3.20	0.40	18.20
6	0.00	2317.67	-1541.88	203.30	286.73	0.29	0.00	291	19	112.00	3.20	14.40	26.20
7	0.19	7082.59	-1277.99	-443.46	-3284.70	-0.29	0.00	310	238	86.00	3.20	0.40	26.20
8	-0.14	2073.03	-87.99	372.09	-590.90	1.20	0.00	374	363	119.00	3.20	0.40	15.50
9	1.09	5713.84	-105.14	117.13	227.04	-0.10	0.00	380	499	189.00	3.20	0.40	17.00
10	0.96	378.05	-405.14	125.52	-224.48	-0.71	0.00	633	499	193.00	3.20	0.40	15.00
11	1.84	652.14	-330.55	507.52	-480.48	-0.71	0.00	697	545	113.00	3.20	0.40	12.70
12	1.01	286.58	-150.55	210.08	-280.55	-0.96	0.00	788	545	115.00	3.20	0.40	19.00
13	1.51	-109.58	-330.55	210.08	-280.55	-0.96	0.00	853	545	115.00	3.20	0.40	19.00
14	1.03	-183.34	-330.55	210.08	-280.55	-0.96	0.00	853	545	115.00	3.20	0.40	19.00
15	1.44	-380.87	-330.55	210.08	-280.55	-0.96	0.00	853	545	115.00	3.20	0.40	19.00
16	1.20	600.60	-172.77	347.55	-150.70	-0.07	0.00	894	84	115.00	3.20	0.40	19.00
17	0.71	434.38	-172.77	347.55	-150.70	-0.07	0.00	894	84	115.00	3.20	0.40	19.00
18	0.34	354.38	-172.77	347.55	-150.70	-0.07	0.00	894	84	115.00	3.20	0.40	19.00
19	0.85	3204.36	-372.86	347.55	-150.70	-0.07	0.00	894	84	115.00	3.20	0.40	19.00
20	1.51	1674.41	-372.86	347.55	-150.70	-0.07	0.00	894	84	115.00	3.20	0.40	19.00
21	1.05	1774.99	-517.77	347.55	-150.70	-0.07	0.00	894	84	115.00	3.20	0.40	19.00
22	1.02	1774.99	-517.77	347.55	-150.70	-0.07	0.00	894	84	115.00	3.20	0.40	19.00
23	1.05	1774.99	-517.77	347.55	-150.70	-0.07	0.00	894	84	115.00	3.20	0.40	19.00
24	1.02	1774.99	-517.77	347.55	-150.70	-0.07	0.00	894	84	115.00	3.20	0.40	19.00
25	1.05	1774.99	-517.77	347.55	-150.70	-0.07	0.00	894	84	115.00	3.20	0.40	19.00
26	1.02	1774.99	-517.77	347.55	-150.70	-0.07	0.00	894	84	115.00	3.20	0.40	19.00
27	1.05	1774.99	-517.77	347.55	-150.70	-0.07	0.00	894	84	115.00	3.20	0.40	19.00
28	1.02	1774.99	-517.77	347.55	-150.70	-0.07	0.00	894	84	115.00	3.20	0.40	19.00
29	1.05	1774.99	-517.77	347.55	-150.70	-0.07	0.00	894	84	115.00	3.20	0.40	19.00
30	1.02	1774.99	-517.77	347.55	-150.70	-0.07	0.00	894	84	115.00	3.20	0.40	19.00
31	1.05	1774.99	-517.77	347.55	-150.70	-0.07	0.00	894	84	115.00	3.20	0.40	19.00
32	1.02	1774.99	-517.77	347.55	-150.70	-0.07	0.00	894	84	115.00	3.20	0.40	19.00
33	1.05	1774.99	-517.77	347.55	-150.70	-0.07	0.00	894	84	115.00	3.20	0.40	19.00
34	1.02	1774.99	-517.77	347.55	-150.70	-0.07	0.00	894	84	115.00	3.20	0.40	19.00
35	1.05	1774.99	-517.77	347.55	-150.70	-0.07	0.00	894	84	115.00	3.20	0.40	19.00
36	1.02	1774.99	-517.77	347.55	-150.70	-0.07	0.00	894	84	115.00	3.20	0.40	19.00
37	1.05	1774.99	-517.77	347.55	-150.70	-0.07	0.00	894	84	115.00	3.20	0.40	19.00
38	1.02	1774.99	-517.77	347.55	-150.70	-0.07	0.00	894	84	115.00	3.20	0.40	19.00
39	1.05	1774.99	-517.77	347.55	-150.70	-0.07	0.00	894	84	115.00	3.20	0.40	19.00
40	1.02	1774.99	-517.77	347.55	-150.70	-0.07	0.00	894	84	115.00	3.20	0.40	19.00
41	1.05	1774.99	-517.77	347.55	-150.70	-0.07	0.00	894	84	115.00	3.20	0.40	19.00
42	1.02	1774.99	-517.77	347.55	-150.70	-0.07	0.00	894	84	115.00	3.20	0.40	19.00
43	1.05	1774.99	-517.77	347.55	-150.70	-0.07	0.00	894	84	115.00	3.20	0.40	19.00
44	1.02	1774.99	-517.77	347.55	-150.70	-0.07	0.00	894	84	115.00	3.20	0.40	19.00
45	1.05	1774.99	-517.77	347.55	-150.70	-0.07	0.00	894	84	115.00	3.20	0.40	19.00
46	1.02	1774.99	-517.77	347.55	-150.70	-0.07	0.00	894	84	115.00	3.20	0.40	19.00
47	1.05	1774.99	-517.77	347.55	-150.70	-0.07	0.00	894	84	115.00	3.20	0.40	19.00
48	1.02	1774.99	-517.77	347.55	-150.70	-0.07	0.00	894	84	115.00	3.20	0.40	19.00
49	1.05	1774.99	-517.77	347.55	-150.70	-0.07	0.00	894	84	115.00	3.20	0.40	19.00
50	1.02	1774.99	-517.77	347.55	-150.70	-0.07	0.00	894	84	115.00	3.20	0.40	19.00
51	1.05	1774.99	-517.77	347.55	-150.70	-0.07	0.00	894	84	115.00	3.20	0.40	19.00
52	1.02	1774.99	-517.77	347.55	-150.70	-0.07	0.00	894	84	115.00	3.20	0.40	19.00
53	1.05	1774.99	-517.77	347.55	-150.70	-0.07	0.00	894	84	115.00	3.20	0.40	19.00
54	1.02	1774.99	-517.77	347.55	-150.70	-0.07	0.00	894	84	115.00	3.20	0.40	19.00
55	1.05	1774.99	-517.77	347.55	-150.70	-0.07	0.00	894	84	115.00	3.20	0.40	19.00
56	1.02	1774.99	-517.77	347.55	-150.70	-0.07	0.00	894	84	115.00	3.20	0.40	19.00
57	1.05	1774.99	-517.77	347.55	-150.70	-0.07	0.00	894	84	115.00	3.20	0.40	19.00
58	1.02	1774.99	-517.77	347.55	-150.70	-0.07	0.00	894	84	115.00	3.20	0.40	19.00
59	1.05	1774.99	-517.77	347.55	-150.70	-0.07	0.00	894	84	115.00	3.20	0.40	19.00
60	1.02	1774.99	-517.77	347.55	-150.70	-0.07	0.00	894	84	115.00	3.20	0.40	19.00
61	1.05	1774.99	-517.77	347.55	-150.70	-0.07	0.00	894	84	115.00	3.20	0.40	19.00



# FOLD 6 CYLINDER (PROPANE)

1438 WEDNESDAY, JUNE 6, 1984 2

VARIABLE	N	MEAN	STD DEV	SUM	MINIMUM	MAXIMUM
CL2	61	1.56524590	0.8972592	95.4800000	-0.19000000	3.27000000
DET1	57	1080.26929825	1858.59225790	107175.3500000	-380.87000000	7396.46000000
DET2	57	-684.46298246	1028.83237275	-39014.3900000	-3513.60000000	875.29000000
DET3	57	514.82245614	356.59163752	29344.8800000	-310.62000000	1975.19000000
DET4	57	-14.06526316	3145.35882485	-801.7200000	-8118.01000000	6847.48000000
FD1	57	0.15842105	2.64071608	9.0300000	-6.53000000	7.30000000
FD2	54	1.00444444	3.12180443	54.2400000	0	18.85000000
MIL	61	2346.18032787	2192.99963907	143117.0000000	0	11017.00000000
FE	61	130.93442623	99.19120741	7987.0000000	19.00000000	434.00000000
VIS	61	114.73442623	17.78717595	6998.8000000	85.00000000	150.00000000
TAN	61	3.74836066	1.76024258	228.6500000	1.96000000	14.48000000
TS	60	2.29866667	2.67081621	137.9200000	0.40000000	14.40000000
CUB	61	15.68688525	8.47701747	956.9000000	5.00000000	38.00000000



## CORRELATION COEFFICIENTS / NUMBER OF OBSERVATIONS

CL2	CL2	DET3	MIL	DET4	COB	DET1	TAN	FD1	FD2	DET2	IS	VIS	FE
61	1.00000	0.69414	0.44206	0.40732	-0.37694	0.32357	0.30047	0.28440	0.21313	0.19576	0.17560	0.06021	0.00846
		57	61	57	61	57	61	57	54	57	60	61	61
DET1	DET1	FD1	CL2	COB	FE	DET2	DET4	DET3	VIS	TAN	FD2	TS	MIL
57	1.00000	0.33053	0.32325	-0.31004	-0.29930	0.28305	0.28268	0.26849	-0.18782	-0.13913	0.09001	0.05947	0.04520
		57	57	57	57	57	57	57	57	57	54	56	57
DET2	DET2	DET4	COB	FE	VIS	DET1	FD1	DET3	IS	CL2	FD2	MIL	TAN
57	1.00000	0.86015	-0.59939	-0.52085	-0.36362	0.28305	0.27297	0.25255	0.19933	0.19576	0.06947	-0.04275	0.02517
		57	57	57	57	57	57	57	56	57	54	57	57
DET3	DET3	MIL	CL2	TAN	IS	DET4	FD2	FE	FD1	DET1	DET2	VIS	COB
57	1.00000	0.74453	0.69414	0.67259	0.56570	0.55314	0.42406	0.33419	0.27485	0.26849	0.25255	0.20022	-0.04938
		57	57	57	56	57	54	57	57	57	57	57	57
DET4	DET4	DET2	COB	CL2	CL2	TS	TAN	VIS	MIL	FD2	DET1	FE	FD1
57	1.00000	0.86015	-0.55314	-0.54149	-0.40732	0.38314	0.32905	-0.32714	0.32566	0.28551	0.28268	-0.25774	0.05551
		57	57	57	57	56	57	57	57	54	57	57	57
FD1	FD1	DET1	VIS	CL2	DET3	DET2	COB	MIL	TAN	IS	FE	FD2	DET4
57	1.00000	0.33053	0.32103	0.28440	0.27485	0.27297	-0.31300	-0.24017	-0.19491	-0.13086	-0.11025	-0.09879	0.05951
		57	57	57	57	57	57	57	57	58	57	54	57
FD2	FD2	TAN	DET3	TS	MIL	DET4	CL2	FE	FD1	DET1	DET2	COB	VIS
54	1.00000	0.49728	0.42406	0.41804	0.37362	0.28751	0.21315	0.12170	-0.09879	0.09001	0.06947	-0.05093	-0.04727
		54	54	53	54	54	54	54	54	54	54	54	54



# FORD 6 CYLINDER (PROPANE)

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## CORRELATION COEFFICIENTS / NUMBER OF OBSERVATIONS

MIL	MIL	TAN	DET3	FE	CL2	FD2	TS	DET4	FD1	COB	VIS	DET1	DET2
1.00000	0.74834	0.74453	0.74453	0.49855	0.44206	0.37362	0.36845	0.32566	-0.24037	0.19866	0.12110	0.04520	-0.04275
61	61	57	57	61	61	54	60	57	57	61	61	57	57
FE	FE	COB	DET2	TAN	MIL	VIS	DET3	DET1	DET4	FD2	TS	FD1	CL2
1.00000	0.58729	0.58729	-0.52085	0.51433	0.49855	0.40046	0.33819	-0.29930	-0.25776	0.12170	0.11832	-0.11034	0.00846
61	61	61	57	61	61	61	57	57	57	54	60	57	61
VIS	VIS	FE	DET2	DET4	FD1	COB	DET3	DET1	MIL	TAN	TS	CL2	FD2
1.00000	0.40046	-0.36362	-0.32716	0.32716	0.32103	0.23700	0.20022	-0.18782	0.12110	0.09147	-0.06408	0.06024	-0.04727
61	61	57	57	57	57	61	57	57	61	61	60	61	54
TAN	TAN	MIL	DET3	FE	FD2	TS	DET4	CL2	FD1	COB	DET1	VIS	DET2
1.00000	0.74834	0.74834	0.67259	0.51433	0.49728	0.38326	0.32566	0.30047	-0.19491	0.16661	-0.13913	0.09147	0.02514
61	61	61	57	61	54	60	57	61	57	61	57	61	57
TS	TS	DET3	FD2	TAN	DET4	MIL	DET2	CL2	FD1	FE	COB	VIS	DET1
1.00000	0.56570	0.41804	0.41804	0.38326	0.38314	0.36845	0.19933	0.17560	-0.13086	0.11832	-0.08102	-0.06408	0.05947
60	56	53	53	60	56	60	56	60	56	60	60	60	56
COB	COB	DET2	FE	DET4	CL2	DET1	FD1	VIS	TAN	TS	FD2	DET3	DET2
1.00000	-0.59339	0.58729	-0.54149	-0.37694	-0.37694	-0.31004	-0.25330	0.23700	0.19866	-0.08102	-0.05093	-0.04938	-0.04938
61	57	61	57	61	61	57	57	61	61	60	54	54	57



MAXIMUM R-SQUARE IMPROVEMENT FOR DEPENDENT VARIABLE VIS

WARNING: 7 OBSERVATIONS DELETED DUE TO MISSING VALUES.

STEP 1 VARIABLE D2D4 ENTERED

R SQUARE = 0.2863800 C(P) = 54.16519288  
 DF SUM OF SQUARES MEAN SQUARE F PR0B>F  
 1 4896.51503797 4896.51503797 21.10 0.0001  
 52 12067.69311018 232.07102135  
 53 16964.20814815

H VALUE STD ERROR TYPE II SS F PR0B>F  
 INTERCEPT 109.42783312 4896.51503797 21.10 0.0001  
 D2D4 0.00000150 0.000000033

THE ABOVE MODEL IS THE BEST 1 VARIABLE MODEL FOUND.

STEP 2 VARIABLE FDI ENTERED R SQUARE = 0.46154101 C(P) = 30.83057309

REGRESSION INTERCEPT 108.62627603 2934.01086280 16.38 0.0002  
 FDI 2.78125073 5743.42347899 32.07 0.0001  
 ERROR 0.06000144 0.000000029  
 TOTAL 16964.20814815

H VALUE STD ERROR TYPE II SS F PR0B>F

STEP 2 D2D4 REPLACED BY DET2 R SQUARE = 0.50924112 C(P) = 23.86213640

REGRESSION INTERCEPT 104.23690252 6551.76993633 40.14 0.0001  
 DET2 -0.01153919 4558.17335042 27.92 0.0001  
 FDI 3.60330779 0.00182143  
 ERROR 0.68190164  
 TOTAL 16964.20814815

H VALUE STD ERROR TYPE II SS F PR0B>F

THE ABOVE MODEL IS THE BEST 2 VARIABLE MODEL FOUND.

STEP 3 VARIABLE DET33 ENTERED R SQUARE = 0.57538693 C(P) = 16.17636253

REGRESSION INTERCEPT 100.42866887 7459.20367217 51.78 0.0001  
 DET2 -0.01262884 4350.15068346 30.20 0.0001  
 FDI 3.52362006 1122.11136351 7.79 0.0074  
 DET33 0.00000757

H VALUE STD ERROR TYPE II SS F PR0B>F



STEP 3 DET2 REPLACED BY C2D4									
DF	R SQUARE	0.6476933	C(P)	5.58761159	MEAN SQUARE	F	PROB>F		
REGRESSION	3	10987.70633633			3662.56877544	30.64	0.0001		
ERROR	50	5976.50182182			119.53003644				
TOTAL	53	16964.20814815							
H VALUE									
INTERCEPT	105.48957970	STD ERROR	TYPE II SS	F	PROB>F				
DET1	2.43968294	0.56166331	2255.23453989	18.87	0.0001				
DET33	0.00002159	0.00000383	6668.51949462	55.79	0.0001				
C2D4	-0.00425546	0.00049925	8685.92627689	72.67	0.0001				

THE ABOVE MODEL IS THE BEST 3 VARIABLE MODEL FOUND.

STEP 4 VARIABLE DET2 ENTERED									
DF	R SQUARE	0.67784594	C(P)	3.17322444	MEAN SQUARE	F	PROB>F		
REGRESSION	4	11499.11966898			2874.77991725	25.78	0.0001		
ERROR	49	5465.08847917			111.53251794				
TOTAL	53	16964.20814815							
H VALUE									
INTERCEPT	105.13948489	STD ERROR	TYPE II SS	F	PROB>F				
DET1	2.20059125	0.55391797	1760.30925289	15.78	0.0002				
DET33	-1.25876953	0.58784219	511.4133265	4.59	0.0372				
C2D4	-0.00003298	0.0000423	6784.51142398	60.83	0.0001				
	-0.00436035	0.00048472	9025.26674591	80.92	0.0001				

THE ABOVE MODEL IS THE BEST 4 VARIABLE MODEL FOUND.

STEP 5 VARIABLE DET4 ENTERED									
DF	R SQUARE	0.68990865	C(P)	3.40687510	MEAN SQUARE	F	PROB>F		
REGRESSION	5	11703.75387722			2340.75077544	21.36	0.0001		
ERROR	48	5260.45427093			109.59279731				
TOTAL	53	16964.20814815							
H VALUE									
INTERCEPT	104.87247855	STD ERROR	TYPE II SS	F	PROB>F				
DET1	2.00176210	0.00129246	204.63420824	1.87	0.1782				
DET33	-1.2002847	0.54908040	1759.81819308	16.06	0.0003				
C2D4	-0.00002948	0.00000491	444.05543384	4.07	0.0493				
	-0.00303820	0.00108030	3941.63745233	35.97	0.0001				
			866.80753618	7.91	0.0071				

STEP 5 DET2 REPLACED BY D1D4									
DF	R SQUARE	0.68996323	C(P)	3.39888180	MEAN SQUARE	F	PROB>F		
REGRESSION	5	11704.67991216			2340.93598243	21.36	0.0001		
ERROR	48	5259.52823599			109.57350492				
TOTAL	53	16964.20814815							
H VALUE									
INTERCEPT	104.68782626	STD ERROR	TYPE II SS	F	PROB>F				
DET1	-0.00291349	0.00136035	502.60831130	4.59	0.0373				
DET33	1.92862408	0.59084389	167.49533662	10.65	0.0020				
C2D4	-0.00002294	0.00000446	2896.13013231	26.43	0.0001				
D1D4	-0.00254810	0.00107557	614.98163017	5.61	0.0219				
	0.00000065	0.00000032	446.98144879	4.08	0.0490				

THE ABOVE MODEL IS THE BEST 5 VARIABLE MODEL FOUND.



STEP 6	VARIABLE	FD2 ENTERED	R SQUARE = 0.71151885	C(P) = 2.24247943	MEAN SQUARE	F	PROB>F
REGRESSION			12070.35383903	2011.72563984	19.32	0.0001	
ERROR			4893.85430912	104.12455077			
TOTAL			16964.20814815				

IF	VALUE	STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	104.46894986	0.00133641	394.99484423	3.79	0.0574
DET4	-0.00260292	0.58208616	63.70329865	9.26	0.0038
FD1	-1.77045233	0.57348894	365.67392686	3.51	0.0672
DET33	-0.00002729	0.000000493	3190.00989740	30.64	0.0001
C204	-0.00282708	0.00105900	742.05677745	7.13	0.0104
DET04	0.00000059	0.00000032	366.59996181	3.52	0.0668

THE ABOVE MODEL IS THE BEST 6 VARIABLE MODEL FOUND.

STEP 7	VARIABLE	FD204 ENTERED	R SQUARE = 0.72581233	C(P) = 2.14947509	MEAN SQUARE	F	PROB>F
REGRESSION			12312.83151654	1758.97593093	17.40	0.0001	
ERROR			4651.37663161	101.11688330			
TOTAL			16964.20814815				

IF	VALUE	STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	104.82117892	0.00163996	637.03495124	6.30	0.0157
DET4	-0.00411676	0.58955335	708.01007991	7.00	0.0111
FD1	-1.56002297	0.56653885	408.66473602	4.02	0.0508
DET33	-0.00003367	0.000000362	3208.29323783	31.73	0.0001
C204	-0.000318288	0.00108639	87.10223783	8.87	0.0076
DET04	0.000000068	0.00000032	470.46224414	4.65	0.0363
DET04	-0.000000080	0.00000052	242.47767751	2.40	0.1283

THE ABOVE MODEL IS THE BEST 7 VARIABLE MODEL FOUND.

STEP 8	VARIABLE	DET11 ENTERED	R SQUARE = 0.73564412	C(P) = 2.70580052	MEAN SQUARE	F	PROB>F
REGRESSION			12479.61995993	1559.95249499	15.65	0.0001	
ERROR			4484.5881821	99.65751529			
TOTAL			16964.20814815				

IF	VALUE	STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	105.83511209	0.00165240	733.09681407	7.36	0.0094
DET4	-0.00448169	0.59500647	812.18285016	8.15	0.0065
FD1	-1.69860958	0.56538914	351.24391974	3.52	0.0670
DET11	-1.06144341	0.00000012	166.78844340	1.67	0.2024
DET33	-0.00000016	0.00000569	281.98491234	28.30	0.0001
C204	-0.00272589	0.00111812	592.31233349	5.94	0.0188
DET04	0.00000070	0.00000032	496.60231384	4.98	0.0306
DET04	-0.00000077	0.00000052	224.16151419	2.25	0.1407

F



STEP 8 D2D4 REPLACED BY DET44

K SQUARE = 0.74122442 C(P) = 1.89267326

DF	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
9	12574.28537850	1397.14820439	16.11	0.0001
44	4309.92276965	97.95522201		
53	16964.20814815			

REGRESSION  
ERROR  
TOTAL

INTERCEPT	B VALUE	STD ERROR	TYPE II SS	F	PROB>F
106.07235957	0.00180904	0.00000012	824.08304427	8.45	0.0057
-0.00525789	0.62830011	0.5582066	531.34293785	5.45	0.0241
1.45699709	0.5582066	0.00000012	273.56543792	2.80	0.1010
-0.93592827	0.00000012	0.00000012	299.51177875	3.07	0.0866
-0.00000027	0.00000012	0.00000012	2744.93396544	28.14	0.0001
0.00003296	0.00000024	0.00000024	318.82693276	3.27	0.0773
-0.00000043	0.00109021	0.00000031	357.23025828	3.66	0.0620
-0.00208623	0.00000031	0.00000031	488.35645683	5.01	0.0303
0.00000069	0.00000031	0.00000031			

STEP 8 D1D4 REPLACED BY D1D3

R SQUARE = 0.74319065 C(P) = 1.60475794

DF	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
9	12607.64079843	1400.845321	16.28	0.0001
44	4356.56734972	99.012828		
53	16964.20814815			

REGRESSION  
ERROR  
TOTAL

INTERCEPT	B VALUE	STD ERROR	TYPE II SS	F	PROB>F
105.55321963	0.00188932	0.00000016	919.81798926	9.50	0.0035
-0.00582359	0.73520367	0.59469785	156.54792748	1.62	0.2100
0.93490046	0.59469785	0.00000017	88.65045923	0.92	0.3437
-0.56907683	0.00000017	0.00000017	730.56431468	7.55	0.0086
-0.00000047	0.00000017	0.00000017	2041.06062374	21.08	0.0001
0.0002974	0.00000024	0.00000024	431.84857452	4.46	0.0403
-0.00000051	0.00113361	0.00000031	190.01188492	1.96	0.1681
-0.00158314	0.00000031	0.00000031	521.71187676	5.39	0.0249
0.00000386	0.00000031	0.00000031			

THE ABOVE MODEL IS THE BEST 8 VARIABLE MODEL FOUND.

STEP 9 VARIABLE D1D4 ENTERED

R SQUARE = 0.74596597 C(P) = 3.19836574

DF	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
9	12654.72194068	1406.08021563	14.36	0.0001
44	4309.48620747	97.94286835		
53	16964.20814815			

REGRESSION  
ERROR  
TOTAL

INTERCEPT	B VALUE	STD ERROR	TYPE II SS	F	PROB>F
105.71358850	0.00190144	0.00000014	904.50815220	9.24	0.0040
-0.00577832	0.76520638	0.62273494	190.41353166	1.94	0.1702
1.06256589	0.62273494	0.00000022	119.45523096	1.22	0.2744
-0.68917296	0.00000038	0.00000038	296.50503969	3.03	0.0889
-0.00000038	0.00000038	0.00000038	2077.32257188	21.21	0.0001
0.00000076	0.00000025	0.00000025	386.02096430	3.94	0.0534
-0.00000049	0.00115946	0.00000027	219.06368412	2.24	0.1419
-0.00173403	0.00000267	0.00000027	80.43656218	0.82	0.3697
0.00000242	0.00000049	0.00000049	47.08114225	0.48	0.4917
0.00000034	0.00000049	0.00000049			



## MAXIMUM R-SQUARE IMPROVEMENT FOR DEPENDENT VARIABLE VIS

STEP 9 DID3 REPLACED BY DID2

R SQUARE = 0.74834523 C(P) = 2.8496928

REGRESSION	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
INTERCEPT	12695.08419175	1410.56691019	14.54	0.0001
ERROR	4269.1239640	97.02554446		
TOTAL	16964.20814815			

IS VALUE	STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	0.00193753	944.8742008	9.74	0.0032
DE14	0.62378997	560.91424598	5.78	0.0203
DE1	0.83370750	211.35312584	2.18	0.1471
DE11	0.00000044	344.85961100	3.55	0.0660
DE13	0.00003168	2453.73476533	25.29	0.0001
DE144	0.00000050	407.12021481	4.20	0.0465
C204	0.00171318	220.08301501	2.27	0.1392
D102	0.00000182	120.79881324	1.25	0.2706
D104	0.00000203	417.17985482	4.30	0.0460

THE ABOVE MODEL IS THE BEST 9 VARIABLE MODEL FOUND.

STEP 10 VARIABLE D203 ENTERED R SQUARE = 0.75231903 C(P) = 4.26808266

REGRESSION	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
INTERCEPT	12762.49662493	1276.24966249	13.06	0.0001
ERROR	4201.7115322	97.71422147		
TOTAL	16964.20814815			

R VALUE	STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	0.00194495	932.27671313	9.54	0.0035
DE14	0.62385224	560.91424598	5.79	0.0216
DE1	0.83370750	211.35312584	2.03	0.1515
DE11	0.00000057	398.09077604	2.04	0.1506
DE13	0.00003367	2423.40018510	25.55	0.0001
DE144	0.00000047	346.66430970	3.55	0.0664
C204	0.00233318	285.9351630	2.93	0.0944
D102	0.00000319	188.18421790	1.93	0.1724
D104	0.00000166	461.94048641	4.73	0.0352
D203	0.00000616	67.41243318	0.69	0.4108

THE ABOVE MODEL IS THE BEST 10 VARIABLE MODEL FOUND.

STEP 11 VARIABLE D304 ENTERED R SQUARE = 0.75565223 C(P) = 5.78000075

REGRESSION	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
INTERCEPT	12819.04164332	1165.36742212	11.81	0.0001
ERROR	4145.16650483	98.694444059		
TOTAL	16964.20814815			

H VALUE	STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	0.00267989	293.31372776	2.97	0.0921
DE14	0.62461995	560.91424598	5.74	0.0216
DE1	0.83370750	211.35312584	2.03	0.1515
DE11	0.00000055	352.63289200	3.57	0.0656
DE13	0.00003367	2423.40018510	25.55	0.0001
DE144	0.00000049	331.04683266	3.35	0.0741
C204	0.00258084	148.17390366	1.50	0.2273
D102	0.00000284	182.3868383	1.87	0.1756
D104	0.00000163	123.5765033	1.25	0.2698
D304	0.00000400	56.54501839	0.57	0.4533







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FORM 6 CYLINDER (PROPANE)

MAXIMUM R-SQUARE IMPROVEMENT FOR DEPENDENT VARIABLE VS

STEP 11 D3D4 REPLACED BY F01

R SQUARE = 0.76429956 C(P) = 4.51376561

PROB>F

F

0.0001

12.38

MEAN SQUARE

1178.70335219

95.20169700

12965.73687405

3998.47127410

16964.20814815

11

42

53

IF

SUM OF SQUARES

TYPE II SS

F

PROB>F

STD ERROR

R VALUE

INTERCEPT

DE14

F01

DE11

DE13

DE14

C201

C202

C203

C204

D102

D104

105.17912760

-0.00561233

1.39641149

-0.00000049

-0.00001720

-0.00000040

-0.00158762

0.00690063

-0.01431586

-0.00441090

-0.00000464

0.00000239

0.00195600

0.00459867

0.00000025

0.00001073

0.00000025

0.00153480

0.00318543

0.00708171

0.00182893

0.00000270

0.00000112

783.77745675

199.53335891

375.11278301

244.73014275

241.08153027

101.86026475

33.79023079

380.00470379

240.97603771

283.08155169

434.55133783

8.23

2.10

3.94

2.57

2.55

1.07

3.55

4.09

5.05

2.95

4.56

0.0064

0.1551

0.0537

0.1164

0.1176

0.3069

0.0665

0.0466

0.0299

0.0931

0.0385



## MAXIMUM R-SQUARE IMPROVEMENT FOR DEPENDENT VARIABLE TAN

WARNING: 7 OBSERVATIONS DELETED DUE TO MISSING VALUES.

STEP 1 VARIABLE DET33 ENTERED

C(P) = 119.38429030

R SQUARE = 0.59760012

SUM OF SQUARES

MEAN SQUARE

F

PROB&gt;F

REGRESSION  
ERROR  
TOTAL107.57073953  
72.43380862  
180.00454815107.57073953  
1.39295786

77.22

0.0001

B VALUE

STD ERROR

TYPE II SS

F

PROB&gt;F

INTERCEPT  
DET332.83585955  
0.00000027

107.57073953

77.22

0.0001

THE ABOVE MODEL IS THE BEST 1 VARIABLE MODEL FOUND.

STEP 2 VARIABLE DET13 ENTERED

C(P) = 49.10109811

R SQUARE = 0.76932058

SUM OF SQUARES

MEAN SQUARE

F

PROB&gt;F

REGRESSION  
ERROR  
TOTAL138.48120295  
41.52334519  
180.0045481569.24060148  
0.81418324

85.04

0.0001

B VALUE

STD ERROR

TYPE II SS

F

PROB&gt;F

INTERCEPT  
DET33  
DET133.11464494  
0.00000030  
-0.00000051137.17524287  
30.91046342168.48  
37.960.0001  
0.0001

THE ABOVE MODEL IS THE BEST 2 VARIABLE MODEL FOUND.

STEP 3 VARIABLE DET3 ENTERED

C(P) = 34.51455129

R SQUARE = 0.80872461

SUM OF SQUARES

MEAN SQUARE

F

PROB&gt;F

REGRESSION  
ERROR  
TOTAL145.57410841  
34.43043973  
180.0045481548.52470280  
0.68860879

70.47

0.0001

B VALUE

STD ERROR

TYPE II SS

F

PROB&gt;F

INTERCEPT  
DET3  
DET132.32937531  
0.00278194  
0.00000187  
-0.000000667.09290546  
12.68048208  
37.6262192210.30  
18.41  
54.640.0023  
0.0001  
0.0001

THE ABOVE MODEL IS THE BEST 3 VARIABLE MODEL FOUND.

STEP 4 VARIABLE DET23 ENTERED

C(P) = 30.08430313

R SQUARE = 0.82400071

SUM OF SQUARES

MEAN SQUARE

F

PROB&gt;F

REGRESSION  
ERROR  
TOTAL148.32387561  
31.68067254  
180.0045481537.08096890  
0.64654434

57.35

0.0001

B VALUE

STD ERROR

TYPE II SS

F

PROB&gt;F

INTERCEPT  
DET3  
DET132.31923048  
0.00207418  
0.00000218  
-0.00000059  
-0.000000583.37884043  
15.30363859  
26.11075229  
2.749767195.23  
23.67  
40.39  
4.250.0266  
0.0001  
0.0001  
0.0445



MAXIMUM R-SQUARE IMPROVEMENT FOR DEPENDENT VARIABLE TAN

STEP 4 DET3 REPLACED BY DET4

R SQUARE = 0.83993051 C(P) = 23.3788862

DF	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
4	151.19131219	37.79782805	64.28	0.0001
53	28.81323595	0.58802522		
TOTAL	180.00454815			

II VALUE	STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	2.83519751	6.24627702	10.62	0.0020
DET4	0.00019186	80.48196502	138.87	0.0001
DET22	0.00000272	28.06360273	41.73	0.0001
DET3	-0.00000050	12.69673778	21.59	0.0001
DET3	-0.00000157			

THE ABOVE MODEL IS THE BEST 4 VARIABLE MODEL FOUND.

STEP 5 VARIABLE DET22 ENTERED

R SQUARE = 0.84674827 C(P) = 22.50905198

DF	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
5	152.41854051	30.48370810	53.04	0.0001
48	27.58600764	0.57470849		
53	180.00454815			

II VALUE	STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	2.82550688	1.29295829	2.25	0.1402
DET4	0.00011658	1.22722832	2.14	0.1504
DET22	-0.00000011	77.74570023	135.28	0.0001
DET33	0.00000284	26.94474690	46.88	0.0001
DET3	-0.00000049	12.57356631	21.88	0.0001
DET3	-0.00000191			

THE ABOVE MODEL IS THE BEST 5 VARIABLE MODEL FOUND.

STEP 6 VARIABLE DET24 ENTERED

R SQUARE = 0.86093539 C(P) = 18.53719509

DF	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
6	154.97228584	25.82871431	48.50	0.0001
47	25.03226231	0.53260133		
53	180.00454815			

II VALUE	STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	2.84212282	3.72732000	7.00	0.0111
DET4	0.00027713	3.55464301	6.67	0.0130
DET22	-0.00000052	53.58088887	100.60	0.0001
DET33	0.00000760	29.12233684	54.68	0.0001
DET3	-0.00000052	15.03247525	28.22	0.0001
DET3	-0.00000239	2.55374532	4.75	0.0335
DET24	0.00000024			

THE ABOVE MODEL IS THE BEST 6 VARIABLE MODEL FOUND.



STEP 7 VARIABLE C203 ENTERED

MAXIMUM R-SQUARE IMPROVEMENT FOR DEPENDENT VARIABLE TAU

C(P) = 0.80836721 C(P) = 0.74088029

DF 7 46 53  
REGRESSION 156.31004718  
ERROR 23.69450097  
TOTAL 180.00454815

IF 7 46 53  
SUM OF SQUARES 156.31004718  
STD ERROR 0.00000000  
R VALUE 0.00000000  
TYPE II SS 3.80637482  
F 7.39  
PR08>F 0.0001

THE ABOVE MODEL IS THE BEST 7 VARIABLE MODEL FOUND.

STEP 8 VARIABLE FD2 ENTERED

R SQUARE = 0.87844073 C(P) = 0.16858262

DF 8 45 53  
REGRESSION 158.12332579  
ERROR 21.88122236  
TOTAL 180.00454815

IF 8 45 53  
SUM OF SQUARES 158.12332579  
STD ERROR 0.00000000  
R VALUE 0.00000000  
TYPE II SS 3.65926817  
F 7.53  
PR08>F 0.0001

THE ABOVE MODEL IS THE BEST 8 VARIABLE MODEL FOUND.

STEP 9 VARIABLE C203 ENTERED

R SQUARE = 0.88425060 C(P) = 0.1471963200

DF 9 44 53  
REGRESSION 159.17057061  
ERROR 20.83397754  
TOTAL 180.00454815

IF 9 44 53  
SUM OF SQUARES 159.17057061  
STD ERROR 0.00000000  
R VALUE 0.00000000  
TYPE II SS 4.39379936  
F 9.28  
PR08>F 0.0001

THE ABOVE MODEL IS THE BEST 9 VARIABLE MODEL FOUND.



MAXIMUM R-SQUARE IMPROVEMENT FOR DEPENDENT VARIABLE TAN

STEP 10 VARIABLE D114 ENTERED

R SQUARE = 0.89679718 C(P) = 11.44170381

DF	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
10	161.42757118	16.14275712	37.37	0.0001
43	18.57697697	0.43202272		
53	180.00454815			

REGRESSION  
ERROR  
TOTAL

B VALUE	STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	2.82434233			
DE14	0.00027968	3.53114282	8.17	0.0065
DE12	-0.16867245	4.5745851	10.47	0.0020
DE13	-0.00000050	3.14553370	7.28	0.0099
DE15	0.00000514	15.56095284	36.02	0.0001
C201	0.00044784	2.78965604	12.64	0.0009
C203	-0.00116901	11.5938124	26.13	0.0001
D103	-0.00000172	0.00000034	0.00	0.9573
D104	0.00000008	0.00000003	0.00	0.9573
D203	-0.00000260	0.00000041	0.00	0.9573
D204	0.00000025	0.00000010	0.00	0.9573

THE ABOVE MODEL IS THE BEST 10 VARIABLE MODEL FOUND.

STEP 11 VARIABLE D123 ENTERED

R SQUARE = 0.90022218 C(P) = 12.00000000

DF	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
11	162.04408702	14.73128064	34.45	0.0001
42	17.96046113	0.42763003		
53	180.00454815			

REGRESSION  
ERROR  
TOTAL

B VALUE	STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	3.13111199			
DE13	-0.00140896	0.00117344	1.44	0.2366
DE14	0.00032800	0.0010532	1.21	0.0033
DE12	-0.16165283	0.05205193	12.18	0.0012
DE15	0.00000059	0.00000020	0.00	0.9573
C201	0.00044784	0.00000090	0.00	0.9573
C203	-0.00116901	0.00012534	1.21	0.0033
D103	-0.00000172	0.00000034	0.00	0.9573
D104	0.00000008	0.00000003	0.00	0.9573
D203	-0.00000260	0.00000041	0.00	0.9573
D204	0.00000025	0.00000010	0.00	0.9573

THE ABOVE MODEL IS THE BEST 11 VARIABLE MODEL FOUND.



MAXIMUM R-SQUARE IMPROVEMENT FOR DEPENDENT VARIABLE TS

WARNING: 8 OBSERVATIONS DELETED DUE TO MISSING VALUES.

STEP 1 VARIABLE DET33 ENTERED R SQUARE = 0.38504572 C(P) = 15.01894081

DF	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
REGRESSION	85.32496850	85.32496850	31.93	0.0001
ERROR	136.27201263	2.67200025		
TOTAL	221.59698113			

H VALUE	STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	1.17362074			
DET33	0.00000203	85.32496850	31.93	0.0001

THE ABOVE MODEL IS THE BEST 1-VARIABLE MODEL FOUND.

STEP 2 VARIABLE C2D3 ENTERED R SQUARE = 0.47834576 C(P) = 7.30607240

DF	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
REGRESSION	105.99997670	52.99998835	22.92	0.0001
ERROR	115.59700443	2.31194009		
TOTAL	221.59698113			

B VALUE	STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	1.72667177			
DET33	0.00000432	61.69759061	26.69	0.0001
C2D3	-0.00145322	20.67500820	8.94	0.0043

THE ABOVE MODEL IS THE BEST 2 VARIABLE MODEL FOUND.

STEP 3 VARIABLE DET4 ENTERED R SQUARE = 0.54137707 C(P) = 2.74428740

DF	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
REGRESSION	119.96752501	39.98917500	19.28	0.0001
ERROR	101.62935613	2.03258713		
TOTAL	221.59698113			

B VALUE	STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	2.17001223			
DET4	0.00021734	13.96754831	6.73	0.0124
DET33	0.00000441	63.98873897	30.85	0.0001
C2D3	-0.00146307	30.50336385	14.71	0.0004

THE ABOVE MODEL IS THE BEST 3 VARIABLE MODEL FOUND.

STEP 4 VARIABLE DET3 ENTERED R SQUARE = 0.57833351 C(P) = 0.89699027

DF	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
REGRESSION	128.15695951	32.03923988	16.46	0.0001
ERROR	93.44002162	1.94666712		
TOTAL	221.59698113			

H VALUE	STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	1.34724579			
DET3	0.00318336	8.18943450	4.21	0.0457
DET4	0.00019897	11.56477026	5.94	0.0185
C2D3	-0.00000372	38.19151233	19.62	0.0001
	-0.00243942	38.57930520	19.82	0.0001

THE ABOVE MODEL IS THE BEST 4 VARIABLE MODEL FOUND.



# MAXIMUM R-SQUARE IMPROVEMENT FIN DEPENDENT VARIABLE TS

STEP 5 VARIABLE FD1 ENTERED

R SQUARE = 0.59709837 C(P) = 0.94350087

DF	IF	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
5	132.31519658		26.46303932	13.93	0.0001
47	13.28170455		1.89961244		
52	221.59698113				

B VALUE	STD ERROR	TYPE II SS	F	PROB>F
0.99258122		11.51190739	6.06	0.0176
0.00402663	0.00163569	9.30381896	4.90	0.0318
0.00018057	0.00008159	4.15823707	2.19	0.1457
-0.12143613	0.08207782	22.21450607	11.69	0.0013
0.00000314	0.00000092	32.43318911	17.07	0.0001
-0.00228037	0.00055188			

STEP 5 DET3 REPLACED BY D3D4 R SQUARE = 0.60610413 C(P) = 0.00596963

DF	IF	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
5	134.31084455		26.86216891	14.46	0.0001
47	87.28613658		1.85715184		
52	221.59698113				

B VALUE	STD ERROR	TYPE II SS	F	PROB>F
1.78517105	0.00015900	24.94217890	13.43	0.0006
0.00058271	0.09105018	7.74783169	4.17	0.0467
-0.18592303	0.0000138	51.68506684	27.83	0.0001
0.00000731	0.00051158	29.10326832	15.67	0.0003
-0.00208517	0.00000037	13.50135535	7.27	0.0097
-0.00000100				

THE ABOVE MODEL IS THE BEST 5 VARIABLE MODEL FOUND.

STEP 6 VARIABLE C2D1 ENTERED

R SQUARE = 0.61782681 C(P) = 0.78559653

DF	IF	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
6	136.90855541		22.81809257	12.39	0.0001
46	84.68842573		1.84105273		
52	221.59698113				

B VALUE	STD ERROR	TYPE II SS	F	PROB>F
1.76998784	0.00015910	23.12732247	12.56	0.0009
0.00056391	0.09781227	10.14480395	5.51	0.0233
-0.22960085	0.0000146	53.51097329	29.07	0.0001
0.00000789	0.00007842	2.5971086	1.41	0.2410
0.00009315	0.00068198	26.02009971	14.13	0.0005
-0.00256384	0.00000037	13.04909123	7.09	0.0107
-0.00000099				

THE ABOVE MODEL IS THE BEST 6-VARIABLE MODEL FOUND.



# MAXIMUM R-SQUARE IMPROVEMENT FOR DEPENDENT VARIABLE TS

STEP 7	VARIABLE	DET11 ENTERED	K SQUARE = 0.63663145	C(P) = 0.82796587	MEAN SQUARE	F	PROB>F
DF			SUM OF SQUARES				
7	REGRESSION		141.07560765		20.15365824	11.26	0.0001
45	ERROR		80.52137348		1.78936366		
52	TOTAL		221.59698113				
U VALUE			STD ERROR		TYPE II SS	F	PROB>F
1.93228324	INTERCEPT		0.00017431		11.81365725	6.60	0.0136
0.00044789	DE14		0.09788495		12.16885665	6.80	0.0123
-0.25526503	FD11		0.00000003		4.16705224	2.33	0.1340
-0.00000000	DE11		0.00000004		52.01476133	29.07	0.0001
0.00000778	DE13		0.00000144		6.75955114	3.78	0.0582
0.00025141	C201		0.00012935		30.00664989	16.77	0.0002
-0.00306971	C203		0.00074962		5.79208261	3.24	0.0787
-0.00000073	D304		0.00000040				

THE ABOVE MODEL IS THE BEST 7 VARIABLE MODEL FOUND.

STEP 8	VARIABLE	CL22 ENTERED	OF	R SQUARE = 0.65077780	SUM OF SQUARES	C(P) = 1.35528027	MEAN SQUARE	F	PROB>F
	REGRESSION		8		144.21039601		18.02629950	10.25	0.0001
	ERROR		44		77.38658513		1.75878603		
	TOTAL		52		221.59698113				
			R VALUE	STD ERROR	TYPE II SS	F	PROB>F		
	INTERCEPT		1.80615218	0.00017300	11.22835510	6.38	0.0152		
	DE14		0.00043712	0.09712578	11.65049661	6.62	0.0135		
	FD11		-0.49977705	0.32306856	3.13478836	1.78	0.1887		
	CL22		-0.3131275	0.00000003	3.82075189	2.17	0.1476		
	DE11		-0.00000004	0.00000232	34.15112734	19.42	0.0001		
	DE13		0.0001022	0.00013011	8.18931911	4.66	0.0364		
	C201		0.00028076	0.00145316	14.55004260	8.27	0.0042		
	C203		-0.00534223	0.00000040	5.63226858	3.20	0.0804		
	D304		-0.00000072						

THE ABOVE MODEL IS THE BEST 8 VARIABLE MODEL FOUND.

STEP 9		VARIABLE DET1 ENTERED		R SQUARE = 0.65907454	C(P) = 2.49156032		
DF		SUM OF SQUARES	MEAN SQUARE	F	PROB>F		
9	REGRESSION	146.04892776	16.22765864	9.24	0.0001		
43	ERROR	75.54805337	1.75693147				
52	TOTAL	221.59698113					
		STD ERROR	TYPE II SS	F	PROB>F		
INTERCEPT		0.00034155	1.83853176	1.05	0.3120		
DE14		0.00017991	8.09860695	4.61	0.0375		
DE11		0.09856732	12.93607573	7.36	0.0095		
CL22		0.32291121	3.06585729	1.75	0.1935		
DE13		0.00000003	4.85607993	2.76	0.1037		
DE11		0.00000032	33.22821010	18.91	0.0001		
C201		0.00013197	13.83115226	7.89	0.0070		
C203		0.00185022	13.94118663	7.93	0.0073		
D304		0.00000040	5.08242939	2.89	0.0962		



STEP 9 C2D1 REPLACED BY D1D3

C(P) = 1.66125307

R SQUARE = 0.66705032

DE	IF	R SQUARE	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
REGRESSION	9		147.81633658	16.42403740	9.57	0.0001
ERROR	43		73.71064450	1.71582894		
TOTAL	52		221.59698113			

B VALUE	STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	0.00033429	3.99678754	2.33	0.1343
DET1	0.00051020	4.68404872	2.73	0.1058
DET4	0.00031162	13.06234899	7.81	0.0085
F01	0.00039999	6.07926328	3.54	0.0666
CL22	0.00000935	5.72192765	3.33	0.0748
DET11	0.00000009	32.80037228	19.12	0.0001
DET33	0.00000990	15.83044889	9.23	0.0040
C203	0.00585246	8.60152407	5.01	0.0304
D103	0.00000060	2.64526504	1.54	0.2211
D304	0.00000052			

THE ABOVE MODEL IS THE BEST 9 VARIABLE MODEL FOUND.

STEP 10 VARIABLE DET44 ENTEKED

C(P) = 3.31238622

R SQUARE = 0.67040147

DE	IF	R SQUARE	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
REGRESSION	10		148.55894161	14.85589416	8.54	0.0001
ERROR	42		73.03803952	1.73900094		
TOTAL	52		221.59698113			

B VALUE	STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	0.00034557	4.59096647	2.64	0.1117
DET1	0.00056148	0.00462232	0.26	0.6122
DET4	0.00019040	13.31306313	7.46	0.0084
F01	0.00037494	5.62554015	3.23	0.0793
CL22	0.00000873	6.0455267	3.22	0.0806
DET11	0.00000010	33.51467761	19.27	0.0001
DET33	0.00001008	0.74260503	0.43	0.5170
DET44	0.00000002	15.35813260	8.83	0.0049
C203	0.00577519	9.32226809	5.36	0.0256
D103	0.00000065	2.07744036	1.19	0.2806
D304	0.00000047			

STEP 10 DET4 REPLACED BY DET3

C(P) = 2.80807524

R SQUARE = 0.67524579

DE	IF	R SQUARE	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
REGRESSION	10		149.63242817	14.96324282	8.73	0.0001
ERROR	42		71.96455296	1.71344174		
TOTAL	52		221.59698113			

B VALUE	STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	0.00033405	4.46866503	2.61	0.1139
DET1	0.00053936	1.96810888	1.15	0.2900
DET3	0.00227938	13.36700373	7.80	0.0078
F01	0.00230284	6.34729614	3.70	0.0611
CL22	0.00000106	5.53724571	3.23	0.0794
DET11	0.00000010	22.37755595	13.06	0.0008
DET33	0.00000003	3.05518544	1.78	0.1890
DET44	0.00000002	17.26447240	10.08	0.0028
C203	0.00195162	9.50258780	5.55	0.0233
D103	0.00000063	2.28279505	0.17	0.6866
D304	0.00000012			



# MAXIMUM R-SQUARE IMPROVEMENT FOR DEPENDENT VARIABLE TS

STEP 10 D304-REPLACED-HY-C204

R-SQUARE = 0.67574390 C(P) = 2.74622020

OF	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
REGRESSION	149.74280785	14.97428078	8.75	0.0001
ERROR	71.85417328	1.71081365		
TOTAL	221.59698113			

R-VALUE	STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	0.69131235	4.57353553	2.67	0.1095
DET1	0.00054336	0.00198897	1.61	0.2116
DET2	0.00252304	16.15122956	9.44	0.0037
DET3	-0.24203145	7.20651543	4.21	0.0464
CL22	0.71352439	5.63274626	3.29	0.0767
CL21	-0.00000009	24.82351877	14.51	0.0004
DET11	0.00000076	3.52351173	12.06	0.1584
DET13	-0.00000003	18.9935638	11.06	0.0018
DET14	-0.00000003	0.39311473	0.23	0.6311
C203	-0.000639619	9.78314434	5.72	0.0213
C204	-0.000004800			
U103	0.000000064			

STEP 10 DET44 REPLACED BY DET2 R-SQUARE = 0.67763093 C(P) = 2.55977300

OF	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
REGRESSION	150.16096934	15.01609693	8.83	0.0001
ERROR	71.43601179	1.70085742		
TOTAL	221.59698113			

R-VALUE	STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	0.68977541	3.27623417	1.93	0.1725
DET1	0.00046711	3.94673322	2.74	0.1352
DET2	0.00081862	4.65200955	10.31	0.0025
DET3	0.00341148	1.52781186	4.23	0.0480
CL22	-0.31799443	7.19415406	1.74	0.1946
CL21	0.71291456	2.95497101	13.82	0.0006
DET11	-0.00000007	23.50550459	10.11	0.0028
DET13	0.00000027	17.19810505	4.21	0.0464
C203	-0.00612359	1.99423389		
C204	-0.00018751	7.16273720		
U103	0.00000056			

I-21

THE ABOVE MODEL IS THE BEST 10 VARIABLE MODEL FOUND.

STEP 11 VARIABLE C202-ENTERED

R-SQUARE = 0.68348531 C(P) = 3.95031185

OF	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
REGRESSION	151.45828067	13.76893461	8.05	0.0001
ERROR	70.13870046	1.71070001		
TOTAL	221.59698113			

R-VALUE	STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	0.47911780	2.78996871	1.63	0.2088
DET1	0.00043381	2.06121471	1.20	0.2788
DET2	0.00063118	5.91747908	3.46	0.0701
DET3	-0.00420015	17.64802182	10.32	0.0026
CL22	0.39044468	8.32523659	6.87	0.0330
CL21	0.79384218	2.51746183	1.57	0.2231
DET11	-0.00000007	24.24234668	14.77	0.0005
DET13	0.00000042	1.29731133	0.76	0.3889
C202	0.00042017	11.77262441	10.39	0.0025
C203	-0.00024031	3.28250582	1.92	0.1735
C204	-0.00029693	7.13808781	4.17	0.0475
U103	0.00000055			

L 11

F



## STEP 11 DET2 REPLACED BY DET4

C(P) = 3.17411458

R SQUARE = 0.69093455

DF

SUM OF SQUARES

MEAN SQUARE

F

PR08&gt;F

REGRESSION  
ERROR  
TOTAL153.10901135  
68.48796978  
221.59698113

8.33 0.0001

B VALUE

STD ERROR

TYPE II SS

PR08&gt;F

INTERCEPT

0.51858049

0.00034284

1.83121831

0.3012

DET1

0.00355496

0.00222290

4.81056915

0.0974

DET4

0.00377711

0.00218918

3.71382159

0.1437

DET1

-0.00027902

0.00016918

15.17382159

0.0024

DET1

-0.35091056

0.1642980

11.41849158

0.0024

DET1

-0.94046287

0.35970999

1.1111

0.2979

DET1

-0.00000006

0.00000005

16.14

0.0002

DET1

0.00009942

0.0000234

26.96492658

0.0990

DET1

0.00077040

0.00045645

4.75851145

0.0010

DET1

-0.00679741

0.00191378

21.07341782

0.0882

DET1

-0.00044866

0.00025688

5.09570605

0.0409

DET1

0.00000056

0.00000027

7.44325661

0.0409

## STEP 11 DET1 REPLACED BY DID2

C(P) = 2.96624812

R SQUARE = 0.69293804

DF

SUM OF SQUARES

MEAN SQUARE

F

PR08&gt;F

REGRESSION  
ERROR  
TOTAL153.55297865  
68.04500248  
221.59798113

8.41 0.0001

B VALUE

STD ERROR

TYPE II SS

PR08&gt;F

INTERCEPT

0.81918954

0.00216113

5.61474598

0.0731

DET3

0.00397505

0.0018230

6.05057922

0.0632

DET4

0.0034807

0.001630804

13.00413768

0.0078

DET1

-0.32557237

0.35868311

12.36239215

0.0093

DET1

-0.97894702

0.00000003

1.55814782

0.3383

DET1

0.00000003

0.0000234

27.09209632

0.0002

DET1

0.0000944

0.0004455

6.6961640

0.0512

DET1

-0.0089298

0.00190950

21.7952327

0.0008

DET1

-0.0069207

0.0025231

9.25895271

0.0591

DET1

-0.00000015

0.00000013

2.27318561

0.2484

DET1

0.00000067

0.00000029

8.88207621

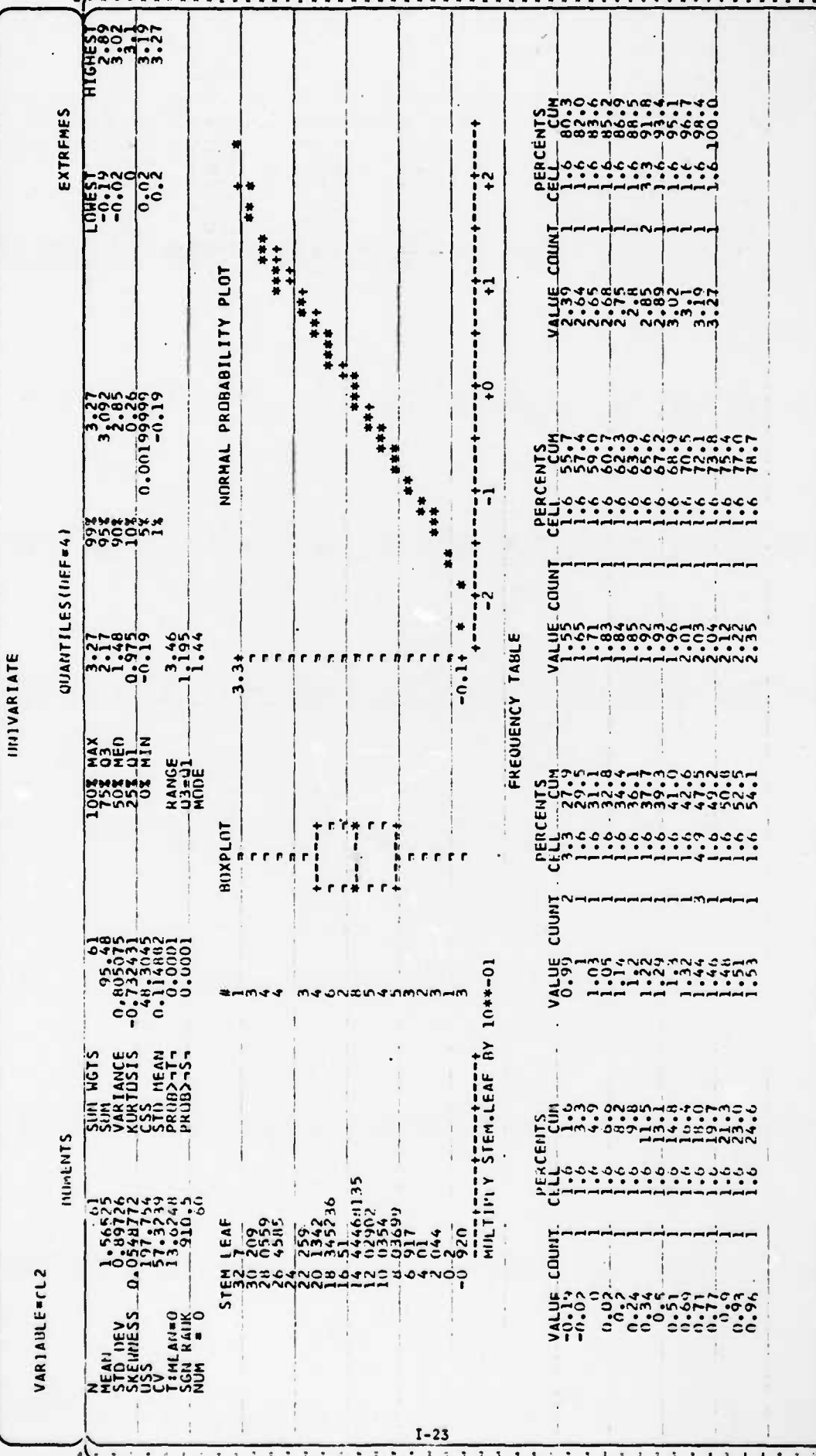
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THE ABOVE MODEL IS THE BEST 11 VARIABLE MODEL FOUND.



FORD 6 CYLINDER (PRISPAF)

14138 WEDNESDAY, JUNE 6, 1984





1413R WEDNESDAY, JUNE 6, 1984

FORD 6 CYLINDER (PROPANE)

5

# UNIVARIATE

VARIABLE=DET1

## MOMENTS

N 57  
MEAN 1880.27  
STD DEV 1858.59  
SKEWNESS 1.29  
KURTOSIS 394962670  
CSS 98.8471  
STD MEAN 7.63719  
PRORS-T 722  
PRORS-S 56  
SIG RANK 0  
NUM 56

## QUANTILES(DEF=4)

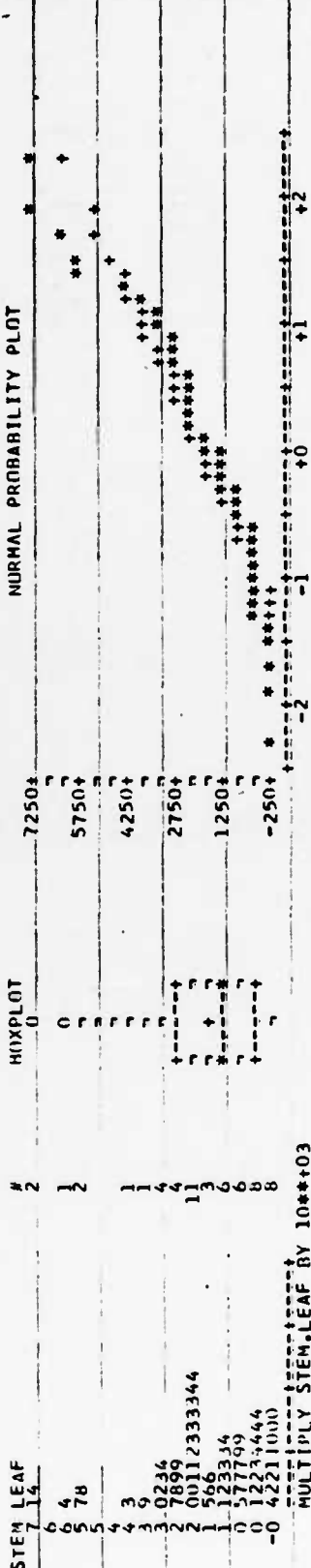
100% MAX 7396.46  
75% Q3 2782.62  
50% MED 1499.27  
25% Q1 389.215  
0% MIN -380.87  
RANGE 7777.33  
Q3-Q1 2393.41  
MODE -380.87

## EXTREMES

LOWEST -380.87  
HIGHEST 7396.46  
-186.33  
-183.34  
-108.58  
-109.18

MISSING VALUE  
COUNT 4  
% COUNT/NOBS 6.56

## NORMAL PROBABILITY PLOT



## FREQUENCY TABLE

VALUE	COUNT	PERCENTS	CUM	VALUE	COUNT	PERCENTS	CUM
-380.87	1	1.8	1.8	2897.88	1	1.8	80.7
-186.33	1	1.8	3.6	2952.17	1	1.8	82.5
-183.34	1	1.8	5.4	3204.95	1	1.8	84.3
-109.58	1	1.8	7.2	3260.98	1	1.8	86.1
-109.18	1	1.8	9.0	3445.98	1	1.8	87.9
10.71	1	1.8	10.8	4252.18	1	1.8	89.7
11.25	1	1.8	12.6	4713.57	1	1.8	91.5
11.76	1	1.8	14.4	5416.57	1	1.8	93.3
143.93	1	1.8	16.2	5422.59	1	1.8	95.1
231.55	1	1.8	18.0	7082.46	1	1.8	96.9
330.52	1	1.8	19.8				
377.1	1	1.8	21.6				
378.05	1	1.8	23.4				
400.58	1	1.8	25.2				











FORD 6 CYLINIER (PROPANE)

14:38 WEDNESDAY, JUNE 6, 1984

8

UNIVARIATE

VARIABLE=NET4

MOMENTS

N 57  
MEAN -14.0653  
STD DEV 3145.36  
SKEWNESS -0.421357  
KURTOSIS 55405676  
USS 2232.26  
CV -0.033761  
T-MEAN=0  
SGN RANK 56  
NUM = 0

SUM MGTS  
SUM 57  
VARIANCE 9893282  
KURTOSIS 55405676  
USS 2232.26  
CV -0.033761  
T-MEAN=0  
SGN RANK 56  
NUM = 0

QUANTILES(DEF=4)

100% MAX 6847.48  
75% Q3 1578.27  
50% MED 1788.66  
25% Q1 -2091.18  
0% MIN -8118.01  
RANGE 14965.5  
Q3-Q1 369.46  
MODE -8118.01

EXTREMES

LOWEST  
-8118.01  
-6455.45  
-5488.68  
-5323.53  
-5257.21  
HIGHEST  
4082.59  
4244.25  
5699.64  
6496.67  
6847.48

MISSING VALUE  
COUNT  
MODE

2  
6.56

BOXPLOT

STEM LEAF  
6 58  
5 7  
4 12  
3 0  
2 1568  
1 00112344566789  
0 2233556889  
-1 9  
-2 3  
-3 85432  
-4 93  
-5 5330  
-6 5  
-7 1  
-8 1

NORMAL PROBABILITY PLOT

6500+  
3500+  
500+  
-2500+  
-5500+  
-8500+

FREQUENCY TABLE

PERCENTS  
CELL  
COUNT  
VALUE  
CUM  
-902.56  
-323.36  
-293.64  
-283.97  
-249.7  
221.36  
227.26  
324.81  
457.84  
490.95  
608.08  
788.66  
824.45

FREQUENCY TABLE

PERCENTS  
CELL  
COUNT  
VALUE  
CUM  
905.06  
975.29  
1000.59  
1097.21  
1130.16  
1154.02  
1251.93  
1375.93  
1416.71  
1495.36  
1570.57  
1585.98  
1674.22

MULTIPLY STEM-LEAF BY 10\*\*+03

PERCENTS  
CELL  
COUNT  
VALUE  
CUM  
1.8  
1.8  
1.8  
1.8  
1.8  
1.8  
1.8  
1.8  
1.8  
1.8  
1.8  
1.8  
1.8  
1.8

PERCENTS

CELL  
COUNT  
VALUE  
CUM  
1.8  
1.8  
1.8  
1.8  
1.8  
1.8  
1.8  
1.8  
1.8  
1.8  
1.8  
1.8  
1.8  
1.8

PERCENTS

CELL  
COUNT  
VALUE  
CUM  
1.8  
1.8  
1.8  
1.8  
1.8  
1.8  
1.8  
1.8  
1.8  
1.8  
1.8  
1.8  
1.8  
1.8



FORD 6 CYLINDER (PROPANE)

14138 WEDNESDAY, JUNE 6, 1984

UNIVARIATE

VARIABLE=FDI

MOMENTS

MEAN 0.158421  
STD DEV 2.64072  
SKEWNESS 0.19895  
CURTOSIS 391.94  
USS 390.509  
CV 0.346771  
T-MEAN 0.452927  
T-RANK 23.5  
NUM 6

QUANTILES(DEF=4)

100% MAX 7.3  
75% Q3 1.765  
50% MED -0.05  
25% Q1 -1.055  
0% MIN -6.53  
RANGE 13.83  
Q3-Q1 2.82  
MODE -2.7

EXTREMES

LOWEST -6.53  
HIGHEST 7.3  
4.94598  
3.984  
-2.798  
-4.749  
-3.32  
-3.15

MISSING VALUE  
COUNT  
COUNT/NORS 6.56

HISTOGRAM

NORMAL PROBABILITY PLOT

STEM LEAF



FREQUENCY TABLE

VALUE	COUNT	PERCENTS	CUM	VALUE	COUNT	PERCENTS	CUM	VALUE	COUNT	PERCENTS	CUM
-6.53	1	1.8	1.8	-0.04	1	1.8	52.6	1.77	1	1.8	77.2
-4.61	1	1.8	3.5	-0.02	1	1.8	54.4	2.01	1	1.8	79.0
-3.32	1	1.8	5.3	0	1	1.8	56.2	2.04	1	1.8	80.7
-3.15	1	1.8	7.0	0.33	1	1.8	58.0	2.07	1	1.8	82.5
-2.79	1	1.8	8.8	0.39	1	1.8	59.8	2.21	1	1.8	84.2
-2.74	1	1.8	10.6	0.42	1	1.8	61.6	2.48	1	1.8	86.0
-1.77	1	1.8	12.4	0.53	1	1.8	63.4	2.68	1	1.8	87.7
-1.37	1	1.8	14.2	0.76	1	1.8	65.2	3.87	1	1.8	89.5
-1.15	1	1.8	16.0	0.99	1	1.8	67.0	4.44	1	1.8	91.3
-0.96	1	1.8	17.8	1.49	1	1.8	68.5	4.75	1	1.8	93.0
			19.6	1.75	1	1.8	70.3	6.73	1	1.8	94.8
			21.4				72.1				96.6
			23.2				73.9				98.4
			25.0				75.7				100.0
			26.8								
			28.6								
			30.4								
			32.2								
			34.0								
			35.8								
			37.6								
			39.4								
			41.2								
			43.0								
			44.8								
			46.6								
			48.4								
			50.2								







FURD 6 CYLINDER (PROPANE)

14:38 WEDNESDAY, JUNE 6, 1984 11

UNIVARIATE

VARIABLE=MIL

MUMENTS

QUANTILES(DEF=4)

EXTREMES

N	61	SUM WGT	143117	100% MAX	11017	99%	11017	LOWEST	HIGHEST
MEAN	2346.16	SUM	143117	75% Q3	3463.6	95%	6870.6	20	5433.1
STD DEV	2193	VARIANCE	4809247	50% MED	1667	90%	5326.2	20	6136
SKEWNESS	1.6825	KURTOSIS	366004	25% Q1	820.5	10%	232.2	119	6952
CV	62.33135	CVS	28554845	0% MIN	0	1%	48.0	119	8609
TIMEAD=0	93.4711	STD MEAN	280.785	RANGE	11017				11017
SGN RANK	8.35579	PRUHS-T	0.0001	Q3-Q1	2673				
NUM	915	PRUHS-S	0.0001	MODE	119				
	60								

STEM LEAF

#

BOXPLINT

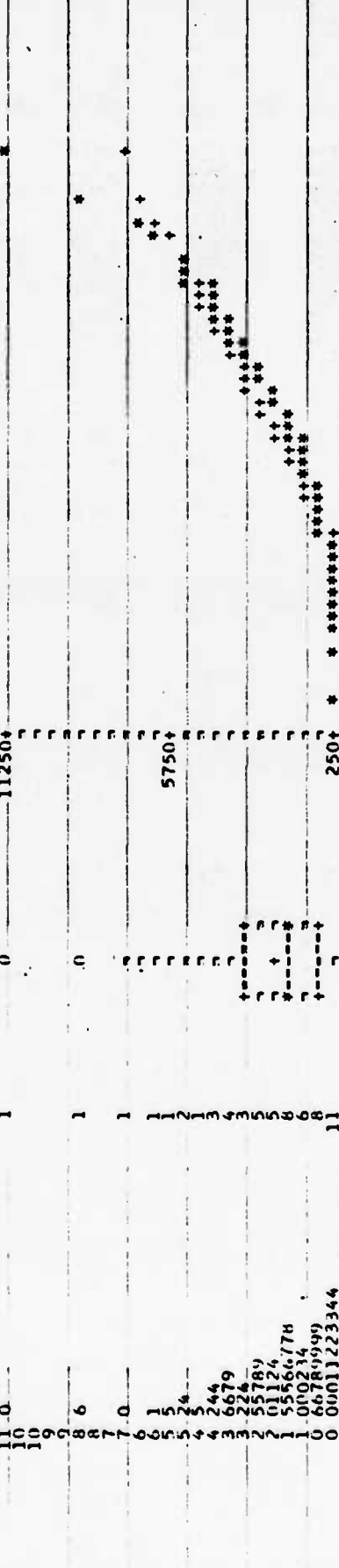
11250+

NORMAL PROBABILITY PLOT

+

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MULTIPLY STEM LEAF BY 10\*\*03

FREQUENCY TABLE

VALUE	COUNT	PERCENTS	CELL	CUM	VALUE	COUNT	PERCENTS	CELL	CUM
0	1	1.6	1	1.6	1698	1	1.6	1	1.6
20	1	1.6	1	3.2	1790	1	1.6	2	3.2
110	1	1.6	1	4.8	1955	1	1.6	3	4.8
229	1	1.6	1	6.4	2056	1	1.6	4	6.4
245	1	1.6	1	8.0	2125	1	1.6	5	8.0
291	1	1.6	1	9.6	2207	1	1.6	6	9.6
310	1	1.6	1	11.2	2369	1	1.6	7	11.2
374	1	1.6	1	12.8	2454	1	1.6	8	12.8
380	1	1.6	1	14.4	2536	1	1.6	9	14.4
439	1	1.6	1	16.0	2724	1	1.6	10	16.0
457	1	1.6	1	17.6	2848	1	1.6	11	17.6
467	1	1.6	1	19.2	3228	1	1.6	12	19.2
467	1	1.6	1	20.8	3428	1	1.6	13	20.8
467	1	1.6	1	22.4					
467	1	1.6	1	24.0					
467	1	1.6	1	25.6					
467	1	1.6	1	27.2					
467	1	1.6	1	28.8					
467	1	1.6	1	30.4					
467	1	1.6	1	32.0					
467	1	1.6	1	33.6					
467	1	1.6	1	35.2					
467	1	1.6	1	36.8					
467	1	1.6	1	38.4					
467	1	1.6	1	40.0					
467	1	1.6	1	41.6					
467	1	1.6	1	43.2					
467	1	1.6	1	44.8					
467	1	1.6	1	46.4					
467	1	1.6	1	48.0					
467	1	1.6	1	49.6					
467	1	1.6	1	51.2					
467	1	1.6	1	52.8					
467	1	1.6	1	54.4					
467	1	1.6	1	56.0					
467	1	1.6	1	57.6					
467	1	1.6	1	59.2					
467	1	1.6	1	60.8					
467	1	1.6	1	62.4					
467	1	1.6	1	64.0					
467	1	1.6	1	65.6					
467	1	1.6	1	67.2					
467	1	1.6	1	68.8					
467	1	1.6	1	70.4					
467	1	1.6	1	72.0					
467	1	1.6	1	73.6					
467	1	1.6	1	75.2					
467	1	1.6	1	76.8					
467	1	1.6	1	78.4					
467	1	1.6	1	80.0					
467	1	1.6	1	81.6					
467	1	1.6	1	83.2					
467	1	1.6	1	84.8					
467	1	1.6	1	86.4					
467	1	1.6	1	88.0					
467	1	1.6	1	89.6					
467	1	1.6	1	91.2					
467	1	1.6	1	92.8					
467	1	1.6	1	94.4					
467	1	1.6	1	96.0					
467	1	1.6	1	97.6					
467	1	1.6	1	99.2					
467	1	1.6	1	100.0					



UNIVARIATE

VARIABLE=FE

MOMENTS

MEAN 61  
STD DEV 130.734  
SKEWNESS 99.1012  
CV 1.636107  
Y-MEAN=0 75.7564  
SGN RANK 10.3097  
NUM 945.5  
SUM 61  
VARIANCE 130.734  
KURTOSIS 99.1012  
CSS 1.636107  
S/D MEAN 75.7564  
PROB>T 10.3097  
PROB>S 945.5

QUANTILES(DEF=4)

100% MAX 434  
75% Q3 185  
50% MED 96  
25% Q1 61  
0% MIN 19  
RANGE 415  
Q3-Q1 123  
MODE 19

EXTREMES

HIGHEST 325  
LOWEST 19  
HIGHEST 335  
LOWEST 19  
HIGHEST 400  
LOWEST 28  
HIGHEST 434  
LOWEST 28

NORMAL PROBABILITY PLOT

HUXPLOT

STEM LEAF  
42 4  
40 0  
38 6  
36 5  
34 55  
32 3  
30 3  
28 1  
26 5  
24 29  
22 97  
20 97  
18 055H2  
16 5  
14 435  
12 49  
10 12259  
8 114894677  
6 455891259  
4 380124579  
2 1886  
0 99  
0 0

FREQUENCY TABLE

VALUE	COUNT	PERCENTS CELL	CUM	VALUE	COUNT	PERCENTS CELL	CUM	VALUE	COUNT	PERCENTS CELL	CUM	VALUE	COUNT	PERCENTS CELL	CUM
10	2	3.3	3.3	101	1	1.6	55.7	209	1	1.6	82.0	317	1	1.6	83.6
20	2	3.3	6.6	102	2	3.3	60.7	217	1	1.6	84.2	322	1	1.6	85.8
30	1	1.6	8.2	103	1	1.6	62.3	232	1	1.6	86.4	333	1	1.6	88.0
40	1	1.6	9.8	104	1	1.6	63.9	265	1	1.6	88.0	341	1	1.6	89.6
50	1	1.6	11.4	105	1	1.6	65.5	291	1	1.6	90.2	355	1	1.6	91.8
60	1	1.6	13.0	106	1	1.6	67.2	301	1	1.6	91.8	365	1	1.6	93.4
70	1	1.6	14.6	107	1	1.6	68.8	325	1	1.6	93.4	400	1	1.6	95.0
80	1	1.6	16.2	108	1	1.6	70.5	335	1	1.6	95.0	434	1	1.6	96.6
90	1	1.6	17.8	109	1	1.6	72.1	345	1	1.6	96.6				
100	1	1.6	19.4	110	1	1.6	73.8	400	1	1.6	98.2				
110	1	1.6	21.0	111	1	1.6	75.4	434	1	1.6	100.0				
120	1	1.6	22.6	112	1	1.6	77.0								
130	1	1.6	24.2	113	1	1.6	78.7								
140	1	1.6	25.8	114	1	1.6	80.3								
150	1	1.6	27.4	115	1	1.6									
160	1	1.6	29.0	116	1	1.6									
170	1	1.6	30.6	117	1	1.6									
180	1	1.6	32.2	118	1	1.6									
190	1	1.6	33.8	119	1	1.6									
200	1	1.6	35.4	120	1	1.6									
210	1	1.6	37.0	121	1	1.6									
220	1	1.6	38.6	122	1	1.6									
230	1	1.6	40.2	123	1	1.6									
240	1	1.6	41.8	124	1	1.6									
250	1	1.6	43.4	125	1	1.6									
260	1	1.6	45.0	126	1	1.6									
270	1	1.6	46.6	127	1	1.6									
280	1	1.6	48.2	128	1	1.6									
290	1	1.6	49.8	129	1	1.6									
300	1	1.6	51.4	130	1	1.6									
310	1	1.6	53.0	131	1	1.6									
320	1	1.6	54.6	132	1	1.6									
330	1	1.6	56.2	133	1	1.6									
340	1	1.6	57.8	134	1	1.6									
350	1	1.6	59.4	135	1	1.6									
360	1	1.6	61.0	136	1	1.6									
370	1	1.6	62.6	137	1	1.6									
380	1	1.6	64.2	138	1	1.6									
390	1	1.6	65.8	139	1	1.6									
400	1	1.6	67.4	140	1	1.6									
410	1	1.6	69.0	141	1	1.6									
420	1	1.6	70.6	142	1	1.6									
430	1	1.6	72.2	143	1	1.6									
440	1	1.6	73.8	144	1	1.6									
450	1	1.6	75.4	145	1	1.6									
460	1	1.6	77.0	146	1	1.6									
470	1	1.6	78.6	147	1	1.6									
480	1	1.6	80.2	148	1	1.6									
490	1	1.6	81.8	149	1	1.6									
500	1	1.6	83.4	150	1	1.6									
510	1	1.6	85.0	151	1	1.6									
520	1	1.6	86.6	152	1	1.6									
530	1	1.6	88.2	153	1	1.6									
540	1	1.6	89.8	154	1	1.6									
550	1	1.6	91.4	155	1	1.6									
560	1	1.6	93.0	156	1	1.6									
570	1	1.6	94.6	157	1	1.6									
580	1	1.6	96.2	158	1	1.6									
590	1	1.6	97.8	159	1	1.6									
600	1	1.6	99.4	160	1	1.6									
610	1	1.6	101.0	161	1	1.6									
620	1	1.6	102.6	162	1	1.6									
630	1	1.6	104.2	163	1	1.6									
640	1	1.6	105.8	164	1	1.6									
650	1	1.6	107.4	165	1	1.6									
660	1	1.6	109.0	166	1	1.6									
670	1	1.6	110.6	167	1	1.6									
680	1	1.6	112.2	168	1	1.6									
690	1	1.6	113.8	169	1	1.6									
700	1	1.6	115.4	170	1	1.6									
710	1	1.6	117.0	171	1	1.6									
720	1	1.6	118.6	172	1	1.6									
730	1	1.6	120.2	173	1	1.6									
740	1	1.6	121.8	174	1	1.6									
750	1	1.6	123.4	175	1	1.6									
760	1	1.6	125.0	176	1	1.6									
770	1	1.6	126.6	177	1	1.6									
780	1	1.6	128.2	178	1	1.6									
790	1	1.6	129.8	179	1	1.6									
800	1	1.6	131.4	180	1	1.6									
810	1	1.6	133.0	181	1	1.6									
820	1	1.6	134.6	182	1	1.6									
830	1	1.6	136.2	183	1	1.6									
840	1	1.6	137.8	184	1	1.6									
850	1	1.6	139.4	185	1	1.6									
860	1	1.6	141.0	186	1	1.6									
870	1	1.6	142.6	187	1	1.6									
880	1	1.6	144.2	188	1	1.6									
890	1	1.6	145.8	189	1	1.6									
900	1	1.6	147.4	190	1	1.6									
910	1	1.6	149.0	191	1	1.6									
920	1	1.6	150.6	192	1	1.6									
930	1	1.6	152.2	193	1	1.6									
940	1	1.6	153.8	194	1	1.6									
950	1	1.6	155.4	195	1	1.6									
960	1	1.6	157.0	196	1	1.6									
970	1	1.6	158.6	197	1	1.6									
980	1	1.6	160.2	198	1	1.6									
990	1	1.6	161.8	199	1	1.6									
1000	1	1.6	163.4	200	1	1.6									



## VARIABLE=VIS

## STAFF

QUANTILES(DEF=4)

## EXTREMES

N	61
MEAN	11.734
STD DEV	17.7872
SKWNESS	0.2772
KURTOSIS	0.55
CV	81.986
TMEAN=0	15.5029
SGN RANK	50.3792
NUM	945.5
SUM	61
VARIANCE	315.5
PROB>T	0
PROB>F	0
SUM WGT5	61

Q00	MAX	150
75%	Q3	125.2
50%	MED	116
25%	Q1	100
0%	MIN	85

RANGE	65
Q3-Q1	25.2
MODE	98

LOWEST	HIGHEST
R5	145
R5	145
R6	148
R8	150

STEM LEAF

## EXPLOIT

# NORMAL PROBABILITY PLOT

STEM	LEAF	#	NOXPLOT	NORMAL PROBABILITY PLOT
1	0	1	152.5	*
1	4	4		***
1	555H	1		***
1	4	1		***
1	13	1		***
1	567H	1		***
1	13	1		***
1	244	3		***
1	13	3		***
1	27	2		***
1	12	0	117.5	***
1	11122334	9		***
1	566778999	9		***
1	11	5		***
1	22233	5		***
1	10	5		***
1	56	5		***
1	10	5		***
1	22233	7		***
1	9	3		***
1	56678HH	7		***
1	9	3		***
1	8	1	82.5	***
1	556A899	7		***
1	8	1		***

MULTIPLY STEM-LEAF BY 10\*\*+01

I-41

## FREQUENCY TABLE

VALUE	COUNT	PERCENTS	CELL	CUM
85	2	3.3	3	3.3
85	3	3.3	3	6.6
86	2	3.3	3	9.9
86	3	3.3	3	13.2
88	2	3.3	3	16.5
88	3	3.3	3	19.8
89	2	3.3	3	23.1
89	3	3.3	3	26.4
90	2	3.3	3	29.7
90	3	3.3	3	33.0
91	2	3.3	3	36.3
91	3	3.3	3	39.6
95	1	1.6	1	41.2
95	2	3.3	3	44.5
96	1	1.6	1	46.1
96	2	3.3	3	49.4
97	1	1.6	1	51.0
97	2	3.3	3	54.3
98	1	1.6	1	55.9
98	2	3.3	3	59.2
102	3	4.9	4	64.1



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UNIVARIATE

VARIABLE=TS		MOMENTS		QUANTILES(DEF=4)		EXTREMES		
N	60	SUM	WGTS	100%	MAX	14.4	LOWEST	HIGHEST
MEAN	2.29867	SUM	VARIANCE	75%	Q3	3.2	0.4	6
STD DEV	2.67082	SUM	KURTOSIS	50%	MED	1.2	0.4	8
SKENESS	2.39675	SUM	CV	25%	Q1	0.4	0.4	10
USS	737.874	SUM	STD MEAN	0%	MIN	0.4	0.4	14.4
CV	116.119	SUM	PROB>T	RANGE				
T:MEAN=0	6.66665	SUM	PRD>T	MODE				
SGN RANK	915	SUM						
SUM	60	SUM						

STEM LEAF	#	BOXPLOT	MISSING VALUE COUNT	% COUNT/NDBS	1.64	NORMAL PROBABILITY PLOT
14 4	1			14.5		*
13 4	1					
12 1	1					
11 0	1					
10 0	1	0				*
9 04	2	0				** *
8 0	1			7.5		* *
7 0	1					
6 0	1					
5 00004	2					
4 12266	6					
3 00048	5					
2 22222	8					
1 44444	10			0.5		
0 44444	25					

FREQUENCY TABLE									
PERCENTS		COUNT		PERCENTS		COUNT		PERCENTS	
CELL	CUM	VALUE	COUNT	CELL	CUM	VALUE	COUNT	CELL	CUM
31.7	31.7	2.8	4	6.7	71.7	4.4	1	8.4	96.7
41.7	41.7	3.2	1	73.3	76.0	4.8	1	10	98.3
58.3	58.3	3.2	2	80.0	86.7	5.2	1	14.4	100.0
63.3	63.3	3.6	2	86.7	93.3	6	1		
65.0	65.0		2			8	1		
1.7	1.7		2				1		
3.3	3.3		2				1		
5.0	5.0		2				1		
10.0	10.0		2				1		
16.7	16.7		2				1		
19	19		2				1		
0.4	0.4		2				1		
0.2	0.2		2				1		
1.2	1.2		2				1		
2.4	2.4		2				1		
3.6	3.6		2				1		
4.8	4.8		2				1		
6.0	6.0		2				1		
7.2	7.2		2				1		
8.4	8.4		2				1		
9.6	9.6		2				1		
10.8	10.8		2				1		
12.0	12.0		2				1		
13.2	13.2		2				1		
14.4	14.4		2				1		
15.6	15.6		2				1		
16.8	16.8		2				1		
18.0	18.0		2				1		
19.2	19.2		2				1		
20.4	20.4		2				1		
21.6	21.6		2				1		
22.8	22.8		2				1		
24.0	24.0		2				1		
25.2	25.2		2				1		
26.4	26.4		2				1		
27.6	27.6		2				1		
28.8	28.8		2				1		
30.0	30.0		2				1		
31.2	31.2		2				1		
32.4	32.4		2				1		
33.6	33.6		2				1		
34.8	34.8		2				1		
36.0	36.0		2				1		
37.2	37.2		2				1		
38.4	38.4		2				1		
39.6	39.6		2				1		
40.8	40.8		2				1		
42.0	42.0		2				1		
43.2	43.2		2				1		
44.4	44.4		2				1		
45.6	45.6		2				1		
46.8	46.8		2				1		
48.0	48.0		2				1		
49.2	49.2		2				1		
50.4	50								



UNIVARIATE

VARIABLE=COB

MOMENTS

N 61  
 MEAN 15.6826  
 STD DEV 8.47702  
 SKEWNESS 0.790881  
 KURTOSIS -0.270137  
 USS 1.63224  
 CV 54.0349  
 TIMEAD=0  
 SIGN RANK 14.453  
 SIGN RANK 245.5  
 SUM WGT 61  
 SUM 956.9  
 VARIANCE 71.8588  
 KURTOSIS -0.270137  
 USS 1.63224  
 STD MEAN 1.08537  
 PRIND=1  
 PRIND=5

QUANTILES(DFF=4)

100% MAX 38  
 75% Q3 20  
 50% MED 14.2  
 25% Q1 5  
 0% MIN 5  
 RANGE 33  
 Q3-Q1 18  
 MODE 18

EXTREMES

LOWEST 5  
 HIGHEST 38

BOXPLT

NORMAL PROBABILITY PLOT



FREQUENCY TABLE

VALUE	COUNT	PERCENTS	CELL	CUM	VALUE	COUNT	PERCENTS	CELL	CUM	VALUE	COUNT	PERCENTS	CELL	CUM
5	2	3.3	3.3	3.3	24	3	4.9	4.9	4.9	30	5	8.2	8.2	8.2
6	3	4.9	4.9	8.2	16	1	1.6	6.6	6.6	31	1	1.6	9.8	9.8
6.4	1	1.6	1.6	9.8	17	1	1.6	8.2	8.2	32	1	1.6	11.4	11.4
7	1	1.6	1.6	11.4	18	1	1.6	9.8	9.8	33	1	1.6	13.0	13.0
7.3	1	1.6	1.6	13.0	19	1	1.6	11.4	11.4	34	1	1.6	14.6	14.6
8	1	1.6	1.6	14.6	20	1	1.6	13.0	13.0	35	1	1.6	16.2	16.2
8.2	1	1.6	1.6	16.2	21	1	1.6	14.6	14.6	36	1	1.6	17.8	17.8



FORD 8 CYLINDER (PROPANE)

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TIME	CL2	DET1	DET2	DET3	DET4	FD1	FD2	MIL	FE	VIS	TAN	TS	COB
1	1.02	888.94	32.75	321.45	660.63	-0.24	5.34	4087	91	137	2.80	6.00	17.9
2	1.00	690.07	0.00	-94.16	-110.42	0.00	0.00	1021	48	106	2.27	2.40	4.8
3	1.33	614.76	60.14	120.71	1231.08	1.78	0.00	3172	26	107	3.34	0.80	9.0
4	1.19	1073.76	-51.44	121.44	1231.08	0.20	0.00	4124	101	111	3.35	1.60	5.5
5	1.31	430.43	-35.53	121.44	1641.80	-0.45	0.00	5310	113	123	4.02	1.20	6.0
6	1.34	518.11	-57.75	124.43	1658.73	3.99	0.00	5838	111	118	4.24	0.40	8.0
7	3.04	3155.97	28.92	224.85	3969.46	1.02	0.00	7443	369	144	3.14	4.00	13.0
8	0.87	2071.95	109.85	757.13	3006.45	4.06	0.00	1989	28	106	3.09	1.60	23.0
9	-1.20	1886.66	441.67	189.11	731.33	7.18	0.00	1185	73	112	3.02	2.20	7.1
10	1.67	163.32	787.48	730.28	2928.78	9.91	0.00	2339	82	113	6.85	2.40	18.2
11	1.35	1892.39	1518.74	985.04	5008.34	5.14	0.00	2639	149	140	6.25	2.00	23.5
12	1.33	2042.59	929.14	1522.12	8509.32	4.76	0.00	4284	112	125	6.25	1.20	23.5
13	0.21	2032.47	929.14	1522.12	5636.04	2.96	0.00	7021	26	107	2.44	0.08	11.0
14	0.39	4215.99	517.02	345.23	585.80	-0.49	0.00	1150	89	112	4.14	4.00	12.0
15	0.07	182.60	103.72	414.75	661.14	1.60	0.00	2393	30	113	3.53	0.40	4.0
16	1.69	3543.24	398.85	597.12	2720.92	25.66	0.00	967	172	119	3.53	0.40	4.0
17	1.83	5989.71	1513.02	1327.81	5376.75	20.41	0.00	729	152	84	3.52	2.80	12.0
18	3.14	2135.21	1326.39	1336.14	6379.18	10.39	0.00	846	283	85	4.72	2.00	16.3
19	3.53	538.21	993.89	1336.14	6379.18	7.66	0.00	1982	447	97	4.03	3.20	16.3
20	4.18	1868.25	864.25	1310.21	6118.41	0.00	0.00	2733	555	109	4.94	0.20	16.3
21	3.21	3435.54	881.13	1326.95	6343.27	0.00	0.00	2847	41	101	3.62	0.40	18.0
22	3.17	2697.16	0.00	0.00	0.00	6.60	0.00	341	94	97	3.55	2.80	17.5
23	0.00	7119.25	80.05	772.14	1795.18	1.32	0.00	778	140	97	4.51	2.00	20.0
24	0.50	2247.78	106.64	783.14	2814.64								

VARIABLE	N	MEAN	STD DEV	SUM	MINIMUM	MAXIMUM
CL2	28	1.32250000	1.25616885	37.03000000	-1.20000000	4.18000000
DET1	28	1846.18392857	1686.27330198	51693.15000000	0	7119.25000000
DET2	28	488.83428571	558.77233253	13687.36000000	-57.75000000	1570.94000000
DET3	28	733.36142857	567.61714663	20534.12000000	-98.16000000	1995.06000000
DET4	28	3360.15214286	2543.73695994	94084.26000000	-110.42000000	8509.32000000
FD1	28	5.73571429	7.17591673	160.60000000	-0.75000000	25.66000000
FD2	28	2.14214286	7.18556854	59.98000000	0	28.12000000
MIL	28	2632.35714286	2194.63182121	73706.00000000	1.00000000	7443.00000000
FE	28	145.53571429	140.60938332	4075.00000000	26.00000000	555.00000000
VIS	28	111.85714286	16.30658646	3132.00000000	84.00000000	144.00000000
TAN	26	3.79964286	1.28822439	106.39000000	1.38000000	6.85000000
TS	28	2.26714286	1.96382253	63.48000000	0.08000000	9.20000000
CUB	28	15.75000000	7.77519798	441.00000000	5.00000000	40.50000000



CL2	CL2	FE	DET4	DET2	FD1	DET3	VIS	MIL	FD2	COH	DET1	IS	TAN
1.00000	0.79454	0.52635	0.43112	0.37689	0.34314	-0.26943	0.14693	0.14292	0.13543	0.10296	-0.05331	-0.04011	
DET1	DET1	ED1	CUH	DET3	VIS	FD2	FE	DET4	MIL	DET2	IS	CL2	TAN
1.00000	0.35121	0.34248	0.29663	-0.27267	0.26399	0.21674	0.19355	-0.19111	0.18948	-0.10537	0.10296	-0.05760	
DET2	DET2	DET4	CUH	FD1	TAN	FD2	COH	CL2	FE	VIS	DET1	MIL	IS
1.00000	0.90542	0.88851	0.83179	0.55356	0.50899	0.46948	0.43112	0.30107	-0.19410	0.18948	-0.05240	-0.04006	
DET3	DET3	DET4	DET2	TAN	FD1	CUH	FE	CL2	DET1	FD2	MIL	VIS	IS
1.00000	0.93788	0.88851	0.76044	0.58540	0.56532	0.43847	0.34014	0.29663	0.24937	0.11987	0.05846	0.05516	
DET4	DET4	DET3	TAN	FD1	FE	CL2	COH	CUH	FD2	DET1	MIL	IS	VIS
1.00000	0.93788	0.90542	0.65053	0.63307	0.59393	0.52635	0.48391	0.25115	0.19355	0.18334	0.07816	0.01723	
FD1	FD1	DET2	DET4	DET3	DET1	VIS	CL2	DET1	MIL	FE	COH	TAN	IS
1.00000	0.83179	0.72673	0.63307	0.58540	-0.54639	0.37689	0.35121	-0.29110	0.25142	0.19143	0.15690	-0.12746	

FD2	FD2	DET2	DET4	DET3	DET1	VIS	CL2	DET1	MIL	TAN	CL2	COH	FE	TS
1.00000	0.72673	0.50899	-0.43869	0.26399	0.25115	0.24937	-0.24339	-0.14404	0.14292	0.07365	-0.07356	-0.03632		
MIL	MIL	VIS	TAN	FD1	FD2	DET1	FE	DET4	CL2	DET3	TS	DET2	COH	TS
1.00000	0.53511	0.34069	-0.29110	-0.24339	-0.19111	0.19023	0.18334	0.14693	0.11987	0.07306	-0.05240	-0.04237		
FE	FE	CL2	DET4	DET3	DET2	FD1	TAN	DET1	COH	MIL	VIS	FD2	TS	TS
1.00000	0.79454	0.59393	0.43847	0.38107	0.25142	0.23572	0.21674	0.20082	0.19023	-0.13850	-0.07356	0.01908		

VIS	VIS	FD1	MIL	TS	FD2	DET1	CL2	TAN	DET2	FE	COH	DET3	DET4
1.00000	-0.54639	0.53511	0.52470	-0.43869	-0.27267	-0.26943	0.25459	-0.19410	-0.13850	0.12877	0.05846	0.01725	
TAN	TAN	DET3	DET4	COH	MIL	VIS	FE	FD1	FD2	IS	DET1	CL2	
1.00000	0.76044	0.65053	0.55356	0.36210	0.34069	0.25459	0.23572	0.15690	-0.14404	-0.13109	-0.05760	0.04011	
TS	TS	VIS	TAN	FD1	DET1	CUH	DET4	MIL	DET3	CL2	DET2	FD2	FE
1.00000	0.52470	-0.13109	-0.12746	-0.10537	0.09773	0.07816	0.07306	0.05516	-0.05331	-0.04006	-0.03832	0.01908	
COH	COH	DET3	DET4	DET2	TAN	DET1	FE	FD1	CL2	VIS	TS	FD2	MIL
1.00000	0.56532	0.48391	0.46948	0.36210	0.34248	0.20082	0.19143	0.13543	0.12877	0.09773	0.07365	-0.04237	

F



## UNIVARIATE

VARIABLE=CL2

## MOMENTS

N 28  
 MEAN 1.3225  
 STD DEV 1.25617  
 SKEWNESS 0.503443  
 KURTOSIS 2.87771  
 USS 31.3771  
 CV 94.9844  
 T:MEAN=0  
 SGN RANK 5.57092  
 NUM 163.26

## QUANTILES(DEF=4)

100% MAX 4.18  
 75% O3 2.0625  
 50% MED 1.255  
 25% O1 0.322  
 0% MIN -1.2  
 RANGE 5.38  
 Q3-Q1 1.72  
 MODE 0

## EXTREMES

LOWEST -1.2  
 HIGHEST 4.18  
 3.88749  
 3.242  
 0  
 0.07  
 0.21  
 3.453  
 4.18

VARIABLE=DET1

## MOMENTS

N 28  
 MEAN 1.84618  
 STD DEV 1.68627  
 SKEWNESS 1.37271  
 KURTOSIS 1.210639  
 USS 91.3383  
 CV 5.7943  
 T:MEAN=0  
 SGN RANK 175.5  
 NUM 175.5

## QUANTILES(DEF=4)

100% MAX 7119.25  
 75% O3 2584.81  
 50% MED 1877.6  
 25% O1 523.135  
 0% MIN 0  
 RANGE 7119.25  
 Q3-Q1 2061.68  
 MODE 0

## EXTREMES

LOWEST 0  
 HIGHEST 7119.25  
 0  
 6160.34  
 0  
 4293.91  
 163.32  
 182.6  
 430.43  
 4216.76  
 4988.4  
 7119.25

VARIABLE=DET2

## MOMENTS

N 28  
 MEAN 488.834  
 STD DEV 558.772  
 SKEWNESS 0.82641  
 KURTOSIS 1.5120967  
 USS 114.407  
 CV 4.6292  
 T:MEAN=0  
 SGN RANK 150.5  
 NUM 150.25

## QUANTILES(DEF=4)

100% MAX 1570.94  
 75% O3 917.137  
 50% MED 209.355  
 25% O1 29.8775  
 0% MIN -57.75  
 RANGE 1629.69  
 Q3-Q1 887.26  
 MODE 0

## EXTREMES

LOWEST -57.75  
 HIGHEST 1570.94  
 -57.75  
 993.89  
 -51.44  
 -37.121  
 -35.53  
 0  
 -57.75  
 1570.94  
 1570.94  
 1513.80  
 1513.80  
 1526.39

VARIABLE=DET3

## MOMENTS

N 28  
 MEAN 733.361  
 STD DEV 567.617  
 SKEWNESS 0.82277  
 KURTOSIS 1.5120967  
 USS 91.3383  
 CV 5.7943  
 T:MEAN=0  
 SGN RANK 175.5  
 NUM 175.5

## QUANTILES(DEF=4)

100% MAX 1995.06  
 75% O3 1289.75  
 50% MED 743.705  
 25% O1 198.042  
 0% MIN -98.16  
 RANGE 2093.22  
 Q3-Q1 1091.71  
 MODE 0

## EXTREMES

LOWEST -98.16  
 HIGHEST 1995.06  
 -98.16  
 1782.23  
 0  
 1505.97  
 0  
 -53.988  
 -98.16  
 1326.95  
 1326.95  
 1504.18  
 1523.12  
 1995.06



UNIVARIATE

VARIABLE=DET4

MOMENTS

N 28  
MEAN 3360.15  
STD DEV 2543.74  
SKEWNESS 0.290373  
CV 490.443566  
T MEAN=0  
SGN RANK 6.58982  
NUM = 0

QUANTILES(DEF=4)

100% MAX 8509.32  
75% O3 5777.43  
50% MED 2871.71  
25% O1 856.267  
0% MIN -110.42  
RANGE 8619.74  
Q3-Q1 4921.17  
MODE

EXTREMES

HIGHEST 8509.32  
LOWEST -110.42  
HIGHEST 6146.21  
LOWEST 0  
HIGHEST 6343.27  
LOWEST 0  
HIGHEST 7404.43  
LOWEST 586.8  
HIGHEST 8509.32  
LOWEST 660.63

VARIABLE=FD1

MOMENTS

N 28  
MEAN 5.73571  
STD DEV 7.17542  
SKEWNESS 3.711612  
CV 125.109  
T MEAN=0  
SGN RANK 4.2225  
NUM = 0

QUANTILES(DEF=4)

100% MAX 25.66  
75% O3 7.54  
50% MED 4.025  
25% O1 0.405  
0% MIN -0.75  
RANGE 26.41  
Q3-Q1 7.135  
MODE

EXTREMES

HIGHEST 25.66  
LOWEST -0.75  
HIGHEST 10.25  
LOWEST -0.49  
HIGHEST 20.91  
LOWEST -0.45  
HIGHEST 24.06  
LOWEST -0.24  
HIGHEST 25.66  
LOWEST -0.75

VARIABLE=FD2

MOMENTS

N 28  
MEAN 2.14214  
STD DEV 7.18557  
SKEWNESS 3.41193  
CV 335.448  
T MEAN=0  
SGN RANK 1.57749  
NUM = 0

QUANTILES(DEF=4)

100% MAX 28.12  
75% O3 28.12  
50% MED 0  
25% O1 0  
0% MIN 0  
RANGE 28.12  
Q3-Q1 0  
MODE

EXTREMES

HIGHEST 28.12  
LOWEST 0  
HIGHEST 28.12  
LOWEST 0  
HIGHEST 28.12  
LOWEST 0  
HIGHEST 28.12  
LOWEST 0

VARIABLE=FDL

MOMENTS

N 28  
MEAN 2632.46  
STD DEV 2194.03  
SKEWNESS 0.833664  
CV 83.3714  
T MEAN=0  
SGN RANK 6.536691  
NUM = 0

QUANTILES(DEF=4)

100% MAX 7443  
75% O3 4114.75  
50% MED 2164  
25% O1 795  
0% MIN 1  
RANGE 7442  
Q3-Q1 3319.75  
MODE

EXTREMES

HIGHEST 7443  
LOWEST 19  
HIGHEST 5310  
LOWEST 19  
HIGHEST 5858  
LOWEST 361  
HIGHEST 6624  
LOWEST 450  
HIGHEST 7443  
LOWEST 667



UNIVARIATE

VARIABLE=FE

MOMENTS

28  
N 145.536  
MEAN 140.609  
STD DEV 17.771  
SKEWNESS 1.79051  
KURTOSIS 2.533817  
USS 26.5727  
CV 0.0001  
TIMEAN=0  
SGN RANK 0.0001  
PRUB>=5  
NUM = 0

QUANTILES(DEF=4)

100% MAX 555  
75% Q3 146.75  
50% MED 99.5  
25% Q1 56.5  
0% MIN 26  
RANGE 529  
Q3-Q1 90.25  
MODE 28

EXTREMES

LOWEST 26  
HIGHEST 283  
28  
369  
445  
447  
555

VARIABLE=VS

MOMENTS

28  
N 111.457  
MEAN 16.3066  
STD DEV 0.17104  
SKEWNESS 35.716  
KURTOSIS 14.578  
USS 36.2977  
CV 0.0001  
TIMEAN=0  
SGN RANK 0.0001  
PRUB>=5  
NUM = 0

QUANTILES(DEF=4)

100% MAX 144  
75% Q3 123  
50% MED 109  
25% Q1 100.25  
0% MIN 84  
RANGE 60  
Q3-Q1 22.75  
MODE 97

EXTREMES

LOWEST 84  
HIGHEST 132  
84  
137  
137  
170  
144

VARIABLE=TS

MOMENTS

28  
N 2.26714  
MEAN 1.96442  
STD DEV 1.83288  
SKEWNESS 248.046  
KURTOSIS 46.621  
USS 6.1038  
CV 0.0001  
TIMEAN=0  
SGN RANK 0.0001  
PRUB>=5  
NUM = 0

QUANTILES(DEF=4)

100% MAX 9.2  
75% Q3 3.2  
50% MED 0.8  
25% Q1 0.08  
0% MIN 0.08  
RANGE 9.12  
Q3-Q1 2.3  
MODE 0.4

EXTREMES

LOWEST 0.08  
HIGHEST 9.2  
0.2  
0.4  
0.4  
9.2

VARIABLE=CH

MOMENTS

28  
N 15.75  
MEAN 7.775  
STD DEV 1.09058  
SKEWNESS 49.4663  
KURTOSIS 10.7108  
USS 0.0001  
CV 0.0001  
TIMEAN=0  
SGN RANK 0.0001  
PRUB>=5  
NUM = 0

QUANTILES(DEF=4)

100% MAX 40.5  
75% Q3 19.75  
50% MED 16.5  
25% Q1 5  
0% MIN 5  
RANGE 35.5  
Q3-Q1 10.75  
MODE 9

EXTREMES

LOWEST 5  
HIGHEST 23  
5.5  
23.9  
23.5  
27.5  
40.5



GU VR 350 CID (PROPANE)

14338 WEDNESDAY, JUNE 6, 1984 45

CHS	CL2	DET1	DET2	DET3	DET4	FD1	FD2	MIL	FE	VIS	TAN	TS	COR
1	0.00	0.00	0.00	0.00	0.0	0.00	0.00	4742	81	102	3.37	0.8	15.1
2	2.24	352.34	960.18	842.30	2726.6	14.29	16.40	580	41	104	2.68	0.4	16.0
3	2.02	1300.27	805.16	835.17	3122.3	18.68	0.00	1908	87	107	2.75	0.4	16.0
4	2.04	1341.30	756.33	847.84	3227.9	7.24	0.00	2693	113	110	4.30	2.0	16.5
5	2.18	1334.32	370.10	683.00	2280.2	-0.47	0.15	4248	99	118	4.51	3.0	13.5
6	2.21	361.90	720.63	592.97	1790.4	0.43	0.00	5966	139	115	4.20	3.0	12.0
7	2.30	385.47	100.50	598.65	2370.0	0.20	0.00	7844	112	113	4.20	3.0	12.0
8	2.78	1293.68	717.23	941.47	342.7	5.31	0.00	8574	108	115	4.34	3.0	12.0
9	3.01	1045.84	512.42	892.66	3950.3	1.34	0.00	5683	191	106	3.36	3.0	16.0
10	1.64	2721.57	506.08	692.16	3534.5	0.03	0.00	156	52	106	2.43	3.0	10.6
11	0.33	1220.00	-165.57	-216.69	-1049.3	-0.57	2.58	239	19	115	2.43	3.0	16.3
12	0.33	324.61	-112.19	117.32	80.6	-1.57	0.00	458	65	120	3.60	2.0	12.5
13	2.34	357.76	-118.77	393.34	1193.6	-0.33	0.00	552	83	121	4.68	1.2	10.5
14	2.07	2117.69	-150.36	509.17	1297.1	-0.32	0.00	644	95	115	3.72	18.0	11.0
15	2.04	2008.49	-142.49	541.61	1563.5	-0.47	0.00	852	177	125	4.03	18.0	11.0
16	2.30	1355.44	-199.49	569.15	1563.5	0.00	0.00	1088	224	125	3.90	18.0	11.0
17	4.45	.	.	.	.	.	.	1149	.	.	.	.	.
18	3.14	.	.	.	.	.	.	.	.	.	.	.	.

VARIABLE	N	MEAN	STD DEV	SUM	MINIMUM	MAXIMUM
CL2	18	2.3016667	1.07792966	41.43000000	0	4.45000000
DET1	16	1256.92000000	972.55847573	20110.72000000	0	3592.36000000
DET2	16	239.52875060	410.90724695	3832.46000000	-199.49000000	960.18000000
DET3	16	553.77250000	335.12622063	8860.36000000	-216.69000000	941.47000000
DET4	16	1968.67812500	1527.40344097	31498.05000000	-1049.34000000	4142.69000000
FU1	16	2.84875000	4.6760631	45.58000000	-1.57000000	14.29000000
FD2	16	1.75812500	4.54520145	28.13000000	0	16.40000000
MIL	18	2844.66666667	2745.86769743	51204.00000000	156.00000000	8574.00000000
FE	18	101.77777778	53.33529408	1832.00000000	19.00000000	224.00000000
VIS	18	115.00000000	8.48528137	2070.00000000	102.00000000	135.00000000
TAN	18	3.75777778	0.71019099	67.64000000	2.43000000	4.68000000
TS	18	3.13143333	3.91978391	56.40000000	0.40000000	18.00000000
COR	18	14.76666667	5.62180628	265.80000000	10.50000000	35.00000000

F



## CORRELATION COEFFICIENTS / NUMBER OF OBSERVATIONS

CL2

CL2	CL2	DET1	DET2	DET3	DET4	DET5	DET6	DET7	DET8	DET9	DET10	DET11	DET12	DET13	DET14	DET15	DET16	DET17	DET18	DET19	DET20	DET21	DET22	DET23	DET24	DET25	DET26	DET27	DET28	DET29	DET30	DET31	DET32	DET33	DET34	DET35	DET36	DET37	DET38	DET39	DET40	DET41	DET42	DET43	DET44	DET45	DET46	DET47	DET48	DET49	DET50	DET51	DET52	DET53	DET54	DET55	DET56	DET57	DET58	DET59	DET60	DET61	DET62	DET63	DET64	DET65	DET66	DET67	DET68	DET69	DET70	DET71	DET72	DET73	DET74	DET75	DET76	DET77	DET78	DET79	DET80	DET81	DET82	DET83	DET84	DET85	DET86	DET87	DET88	DET89	DET90	DET91	DET92	DET93	DET94	DET95	DET96	DET97	DET98	DET99	DET100	DET101	DET102	DET103	DET104	DET105	DET106	DET107	DET108	DET109	DET110	DET111	DET112	DET113	DET114	DET115	DET116	DET117	DET118	DET119	DET120	DET121	DET122	DET123	DET124	DET125	DET126	DET127	DET128	DET129	DET130	DET131	DET132	DET133	DET134	DET135	DET136	DET137	DET138	DET139	DET140	DET141	DET142	DET143	DET144	DET145	DET146	DET147	DET148	DET149	DET150	DET151	DET152	DET153	DET154	DET155	DET156	DET157	DET158	DET159	DET160	DET161	DET162	DET163	DET164	DET165	DET166	DET167	DET168	DET169	DET170	DET171	DET172	DET173	DET174	DET175	DET176	DET177	DET178	DET179	DET180	DET181	DET182	DET183	DET184	DET185	DET186	DET187	DET188	DET189	DET190	DET191	DET192	DET193	DET194	DET195	DET196	DET197	DET198	DET199	DET200	DET201	DET202	DET203	DET204	DET205	DET206	DET207	DET208	DET209	DET210	DET211	DET212	DET213	DET214	DET215	DET216	DET217	DET218	DET219	DET220	DET221	DET222	DET223	DET224	DET225	DET226	DET227	DET228	DET229	DET230	DET231	DET232	DET233	DET234	DET235	DET236	DET237	DET238	DET239	DET240	DET241	DET242	DET243	DET244	DET245	DET246	DET247	DET248	DET249	DET250	DET251	DET252	DET253	DET254	DET255	DET256	DET257	DET258	DET259	DET260	DET261	DET262	DET263	DET264	DET265	DET266	DET267	DET268	DET269	DET270	DET271	DET272	DET273	DET274	DET275	DET276	DET277	DET278	DET279	DET280	DET281	DET282	DET283	DET284	DET285	DET286	DET287	DET288	DET289	DET290	DET291	DET292	DET293	DET294	DET295	DET296	DET297	DET298	DET299	DET300	DET301	DET302	DET303	DET304	DET305	DET306	DET307	DET308	DET309	DET310	DET311	DET312	DET313	DET314	DET315	DET316	DET317	DET318	DET319	DET320	DET321	DET322	DET323	DET324	DET325	DET326	DET327	DET328	DET329	DET330	DET331	DET332	DET333	DET334	DET335	DET336	DET337	DET338	DET339	DET340	DET341	DET342	DET343	DET344	DET345	DET346	DET347	DET348	DET349	DET350	DET351	DET352	DET353	DET354	DET355	DET356	DET357	DET358	DET359	DET360	DET361	DET362	DET363	DET364	DET365	DET366	DET367	DET368	DET369	DET370	DET371	DET372	DET373	DET374	DET375	DET376	DET377	DET378	DET379	DET380	DET381	DET382	DET383	DET384	DET385	DET386	DET387	DET388	DET389	DET390	DET391	DET392	DET393	DET394	DET395	DET396	DET397	DET398	DET399	DET400	DET401	DET402	DET403	DET404	DET405	DET406	DET407	DET408	DET409	DET410	DET411	DET412	DET413	DET414	DET415	DET416	DET417	DET418	DET419	DET420	DET421	DET422	DET423	DET424	DET425	DET426	DET427	DET428	DET429	DET430	DET431	DET432	DET433	DET434	DET435	DET436	DET437	DET438	DET439	DET440	DET441	DET442	DET443	DET444	DET445	DET446	DET447	DET448	DET449	DET450	DET451	DET452	DET453	DET454	DET455	DET456	DET457	DET458	DET459	DET460	DET461	DET462	DET463	DET464	DET465	DET466	DET467	DET468	DET469	DET470	DET471	DET472	DET473	DET474	DET475	DET476	DET477	DET478	DET479	DET480	DET481	DET482	DET483	DET484	DET485	DET486	DET487	DET488	DET489	DET490	DET491	DET492	DET493	DET494	DET495	DET496	DET497	DET498	DET499	DET500	DET501	DET502	DET503	DET504	DET505	DET506	DET507	DET508	DET509	DET510	DET511	DET512	DET513	DET514	DET515	DET516	DET517	DET518	DET519	DET520	DET521	DET522	DET523	DET524	DET525	DET526	DET527	DET528	DET529	DET530	DET531	DET532	DET533	DET534	DET535	DET536	DET537	DET538	DET539	DET540	DET541	DET542	DET543	DET544	DET545	DET546	DET547	DET548	DET549	DET550	DET551	DET552	DET553	DET554	DET555	DET556	DET557	DET558	DET559	DET560	DET561	DET562	DET563	DET564	DET565	DET566	DET567	DET568	DET569	DET570	DET571	DET572	DET573	DET574	DET575	DET576	DET577	DET578	DET579	DET580	DET581	DET582	DET583	DET584	DET585	DET586	DET587	DET588	DET589	DET590	DET591	DET592	DET593	DET594	DET595	DET596	DET597	DET598	DET599	DET600	DET601	DET602	DET603	DET604	DET605	DET606	DET607	DET608	DET609	DET610	DET611	DET612	DET613	DET614	DET615	DET616	DET617	DET618	DET619	DET620	DET621	DET622	DET623	DET624	DET625	DET626	DET627	DET628	DET629	DET630	DET631	DET632	DET633	DET634	DET635	DET636	DET637	DET638	DET639	DET640	DET641	DET642	DET643	DET644	DET645	DET646	DET647	DET648	DET649	DET650	DET651	DET652	DET653	DET654	DET655	DET656	DET657	DET658	DET659	DET660	DET661	DET662	DET663	DET664	DET665	DET666	DET667	DET668	DET669	DET670	DET671	DET672	DET673	DET674	DET675	DET676	DET677	DET678	DET679	DET680	DET681	DET682	DET683	DET684	DET685	DET686	DET687	DET688	DET689	DET690	DET691	DET692	DET693	DET694	DET695	DET696	DET697	DET698	DET699	DET700	DET701	DET702	DET703	DET704	DET705	DET706	DET707	DET708	DET709	DET710	DET711	DET712	DET713	DET714	DET715	DET716	DET717	DET718	DET719	DET720	DET721	DET722	DET723	DET724	DET725	DET726	DET727	DET728	DET729	DET730	DET731	DET732	DET733	DET734	DET735	DET736	DET737	DET738	DET739	DET740	DET741	DET742	DET743	DET744	DET745	DET746	DET747	DET748	DET749	DET750	DET751	DET752	DET753	DET754	DET755	DET756	DET757	DET758	DET759	DET760	DET761	DET762	DET763	DET764	DET765	DET766	DET767	DET768	DET769	DET770	DET771	DET772	DET773	DET774	DET775	DET776	DET777	DET778	DET779	DET780	DET781	DET782	DET783	DET784	DET785	DET786	DET787	DET788	DET789	DET790	DET791	DET792	DET793	DET794	DET795	DET796	DET797	DET798	DET799	DET800	DET801	DET802	DET803	DET804	DET805	DET806	DET807	DET808	DET809	DET810	DET811	DET812	DET813	DET814	DET815	DET816	DET817	DET818	DET819	DET820	DET821	DET822	DET823	DET824	DET825	DET826	DET827	DET828	DET829	DET830	DET831	DET832	DET833	DET834	DET835	DET836	DET837	DET838	DET839	DET840	DET841	DET842	DET843	DET844	DET845	DET846	DET847	DET848	DET849	DET850	DET851	DET852	DET853	DET854	DET855	DET856	DET857	DET858	DET859	DET860	DET861	DET862	DET863	DET864	DET865	DET866	DET867	DET868	DET869	DET870	DET871	DET872	DET873	DET874	DET875	DET876	DET877	DET878	DET879	DET880	DET881	DET882	DET883	DET884	DET885	DET886	DET887	DET888	DET889	DET890	DET891	DET892	DET893	DET894	DET895	DET896	DET897	DET898	DET899	DET900	DET901	DET902	DET903	DET904	DET905	DET906	DET907	DET908	DET909	DET910	DET911	DET912	DET913	DET914	DET915	DET916	DET917	DET918	DET919	DET920	DET921	DET922	DET923	DET924	DET925	DET926	DET927	DET928	DET929	DET930	DET931	DET932	DET933	DET934	DET935	DET936	DET937	DET938	DET939	DET940	DET941	DET942	DET943	DET944	DET945	DET946	DET947	DET948	DET949	DET950	DET951	DET952	DET953	DET954	DET955	DET956	DET957	DET958	DET959	DET960	DET961	DET962	DET963	DET964	DET965	DET966	DET967	DET968	DET969	DET970	DET971	DET972	DET973	DET974	DET975	DET976	DET977	DET978	DET979	DET980	DET981	DET982	DET983	DET984	DET985	DET986	DET987	DET988	DET989	DET990	DET991	DET992	DET993	DET994	DET995	DET996	DET997	DET998	DET999	DET1000	DET1001	DET1002	DET1003	DET1004	DET1005	DET1006	DET1007	DET1008	DET1009	DET1010	DET1011	DET1012	DET1013	DET1014	DET1015	DET1016	DET1017	DET1018	DET1019	DET1020	DET1021	DET1022	DET1023	DET1024	DET1025	DET1026	DET1027	DET1028	DET1029	DET1030	DET1031	DET1032	DET1033	DET1034	DET1035	DET1036	DET1037	DET1038	DET1039	DET1040	DET1041	DET1042	DET1043	DET1044	DET1045	DET1046	DET1047	DET1048	DET1049	DET1050	DET1051	DET1052	DET1053	DET1054	DET1055	DET1056	DET1057	DET1058	DET1059	DET1060	DET1061	DET1062	DET1063	DET1064	DET1065	DET1066	DET1067	DET1068	DET1069	DET1070	DET1071	DET1072	DET1073	DET1074	DET1075	DET1076	DET1077	DET1078	DET1079	DET1080	DET1081	DET1082	DET1083	DET1084	DET1085	DET1086	DET1087	DET1088	DET1089	DET1090	DET1091	DET1092	DET1093	DET1094	DET1095	DET1096	DET1097	DET1098	DET1099	DET1100	DET1101	DET1102	DET1103	DET1104	DET1105	DET1106	DET1107	DET1108	DET1109	DET1110	DET1111	DET1112	DET1113	DET1114	DET1115	DET1116	DET1117	DET1118	DET1119	DET1120	DET1121	DET1122	DET1123	DET1124	DET1125	DET1126	DET1127	DET1128	DET1129	DET1130	DET1131	DET1132	DET1133	DET1134	DET1135	DET1136	DET1137	DET1138	DET1139	DET1140	DET1141	DET1142	DET1143	DET1144	DET1145	DET1146	DET1147	DET1148	DET1149	DET1150	DET1151	DET1152	DET1153	DET1154	DET1155	DET1156	DET1157	DET1158	DET1159	DET1160	DET1161	DET1162	DET1163	DET1164	DET1165	DET1166	DET1167	DET1168	DET1169	DET1170	DET1171	DET1172	DET1173	DET1174	DET1175	DET1176	DET1177	DET1178	DET1179	DET1180	DET1181	DET1182	DET1183	DET1184	DET1185	DET1186	DET1187	DET1188	DET1189	DET1190	DET1191	DET1192	DET1193	DET1194	DET1195	DET1196	DET1197	DET1198	DET1199	DET1200	DET1201	DET1202	DET1203	DET1204	DET1205	DET1206	DET1207
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UNIVARIATE

VARIABLE=CL2

MOMENTS

N 16  
MEAN 2.30157  
STD DEV 1.07793  
SKEWNESS -0.112995  
CURTOSIS 0.663299  
CV 19.7529  
STD MEAN 0.25407  
PRUB>T 0.0001  
PRUB>S 0.001320427  
TIMEALLO 76.5  
SGN RANK 17  
NUM = 0

QUANTILES(DEF=4)

100% MAX 4.45 99%  
75% Q3 3.0172 95%  
50% MED 2.27 90%  
25% Q1 1.94 10%  
0% MIN 0 5%  
RANGE 4.45  
Q3-Q1 1.0775  
MODE 2.3

EXTREMES

LOWEST 0  
HIGHEST 4.45  
0.74  
0.92  
2.04  
3.01  
3.14  
4.03  
4.45

VARIABLE=NET1

MOMENTS

N 16  
MEAN 1256.92  
STD DEV 972.554  
SKEWNESS 0.980121  
CURTOSIS 3.94676  
CV 77.3763  
STD MEAN 5.16754  
PRUB>T 0  
PRUB>S 0.00114225  
TIMEALLO 60  
SGN RANK 15  
NUM = 0

QUANTILES(DEF=4)

100% MAX 3592.38 99%  
75% Q3 1851.43 95%  
50% MED 1256.84 90%  
25% Q1 387.755 10%  
0% MIN 0 5%  
RANGE 3592.38  
Q3-Q1 1505.68  
MODE 0

EXTREMES

LOWEST 0  
HIGHEST 3592.38  
3592.38  
2982.41  
250.431  
361.9  
2117.69  
394.61  
3592.38

MISSING VALUE  
COUNT  
% COUNT/NOHS 11.11

VARIABLE=NET2

MOMENTS

N 16  
MEAN 239.29  
STD DEV 410.007  
SKEWNESS 0.4007  
CURTOSIS 1.39595  
CV 171.544  
STD MEAN 2.33171  
PRUB>T 0  
PRUB>S 0.132299  
TIMEALLO 27  
SGN RANK 15  
NUM = 0

QUANTILES(DEF=4)

100% MAX 960.18 99%  
75% Q3 660.027 95%  
50% MED 80.565 90%  
25% Q1 -142.462 10%  
0% MIN -199.49 5%  
RANGE 1159.67  
Q3-Q1 808.49  
MODE -199.49

EXTREMES

LOWEST -199.49  
HIGHEST 960.18  
-182.49  
-165.57  
-150.36  
-118.77  
-199.49  
808.49  
960.18

MISSING VALUE  
COUNT  
% COUNT/NOHS 11.11

VARIABLE=NET3

MOMENTS

N 16  
MEAN 553.712  
STD DEV 335.126  
SKEWNESS -1.09339  
CURTOSIS 0.578465  
CV 60.5169  
STD MEAN 6.60072  
PRUB>T 0  
PRUB>S 0.00139163  
TIMEALLO 50  
SGN RANK 15  
NUM = 0

QUANTILES(DEF=4)

100% MAX 941.47 99%  
75% Q3 840.567 95%  
50% MED 595.87 90%  
25% Q1 422.297 10%  
0% MIN -216.69 5%  
RANGE 1158.16  
Q3-Q1 418.27  
MODE -216.69

EXTREMES

LOWEST -216.69  
HIGHEST 941.47  
-216.69  
117.32  
393.34  
509.17  
941.47

MISSING VALUE  
COUNT  
% COUNT/NOHS 11.11



VARIABLE=F0FT4

## MOMENTS

N 16  
 MEAN 1968.68  
 STD DEV 1527.4  
 SKEWNESS -0.335305  
 USS 97005816  
 CV 77.502  
 TIMEAD=0  
 SGN RANK 5.1562  
 NUM = 0

SUM WGT  
 SUM  
 VARIANCE  
 KURTOSIS  
 CSS  
 STD MEAN  
 PRD>T  
 PRD>S

16  
 31494.8  
 2332961  
 -0.675243  
 34994619  
 381.851  
 0.00117316  
 0.00133205

## QUANTILES(DEF=4)

100% MAX 4142.69  
 75% Q3 3431.43  
 50% MED 2042.31  
 25% Q1 946.815  
 0% MIN -1049.34

RANGE 5192.03  
 Q3-Q1 2484.62  
 MODE -1049.34

MISSING VALUE  
 COUNT  
 % COUNT/NBRS 11.11

## EXTREMES

LOWEST -1049.34  
 HIGHEST 4142.69

VARIABLE=F01

## MOMENTS

N 16  
 MEAN 2.84875  
 STD DEV 4.69761  
 SKEWNESS 1.28172  
 USS 160.055  
 CV 164.051  
 TIMEAD=0  
 SGN RANK 2.4257  
 NUM = 0

SUM WGT  
 SUM  
 VARIANCE  
 KURTOSIS  
 CSS  
 STD MEAN  
 PRD>T  
 PRD>S

16  
 45.58  
 22.0475  
 0.70408  
 331.913  
 1.1744  
 0.0203617  
 0.118239

## QUANTILES(DEF=4)

100% MAX 14.29  
 75% Q3 6.9825  
 50% MED 0.23  
 25% Q1 -0.435  
 0% MIN -1.57

RANGE 15.86  
 Q3-Q1 7.4175  
 MODE -0.47

MISSING VALUE  
 COUNT  
 % COUNT/NBRS 11.11

## EXTREMES

LOWEST -1.57  
 HIGHEST 14.29

VARIABLE=F02

## MOMENTS

N 16  
 MEAN 1.75812  
 STD DEV 4.5452  
 SKEWNESS 2.81786  
 USS 359.339  
 CV 258.526  
 TIMEAD=0  
 SGN RANK 1.54724  
 NUM = 0

SUM WGT  
 SUM  
 VARIANCE  
 KURTOSIS  
 CSS  
 STD MEAN  
 PRD>T  
 PRD>S

16  
 28.13  
 20.6589  
 7.74678  
 307.883  
 1.1363  
 0.142642  
 0.181449

## QUANTILES(DEF=4)

100% MAX 16.4  
 75% Q3 0  
 50% MED 0  
 25% Q1 0  
 0% MIN 0

RANGE 16.4  
 Q3-Q1 0  
 MODE 0

MISSING VALUE  
 COUNT  
 % COUNT/NBRS 11.11

## EXTREMES

LOWEST 0  
 HIGHEST 16.4

VARIABLE=F03

## MOMENTS

N 18  
 MEAN 2844.67  
 STD DEV 2745.87  
 SKEWNESS 0.874639  
 USS 273834732  
 CV 96.5269  
 TIMEAD=0  
 SGN RANK 4.34529  
 NUM = 0

SUM WGT  
 SUM  
 VARIANCE  
 KURTOSIS  
 CSS  
 STD MEAN  
 PRD>T  
 PRD>S

18  
 51204  
 7539789  
 -0.479986  
 120176420  
 647.207  
 0.00395154  
 0.00214092

## QUANTILES(DEF=4)

100% MAX 8574  
 75% Q3 4977.25  
 50% MED 1528.5  
 25% Q1 573  
 0% MIN 156

RANGE 8418  
 Q3-Q1 4408.75  
 MODE 156

## EXTREMES

LOWEST 156  
 HIGHEST 8574



UNIVARIATE

VARIABLE=FE

MOMENTS

QUANTILES(DEF=4)

EXTREMES

MEAN	101.778	18	SUM WGT	18	100% MAX	224	99%	224	LOWEST	19	HIGHEST	113
STD DEV	53.353	18	SUN	284.65	75% Q3	119.5	95%	224	41	139		
SKEWNESS	0.052686	18	VARIANCE	0.495019	50% MED	95.5	90%	194.3	50	177		
USS	254816	18	KURTOSIS	4.83571	25% Q1	61.19	10%	38.8	52	161		
CV	52.4037	18	CSS	12.5712	0% MIN	1	1%	19	65	224		
TMEAN=0	8.09608	18	STD MEAN	0.0001	RANGE	205						
SGN RANK	85.5	18	PROB>T	.00021492	Q3-Q1	57.73						
NUM = 0		18	PROB>S		MODE							

VARIABLE=VIS

MOMENTS

QUANTILES(DEF=4)

EXTREMES

MEAN	101.778	18	SUM WGT	18	100% MAX	135	99%	135	LOWEST	102	HIGHEST	120
STD DEV	53.353	18	SUN	2070	75% Q3	120.23	95%	135	102	121		
SKEWNESS	0.546032	18	VARIANCE	0.319056	50% MED	115	90%	126	104	123		
USS	239274	18	KURTOSIS	1224	25% Q1	106.75	10%	103.8	106	125		
CV	7.37851	18	CSS	2	0% MIN	102	1%	102	107	135		
TMEAN=0	57.5	18	STD MEAN	0.0001	RANGE	33						
SGN RANK	85.5	18	PROB>T	.000209317	Q3-Q1	13.5						
NUM = 0		18	PROB>S		MODE	115						

VARIABLE=TS

MOMENTS

QUANTILES(DEF=4)

EXTREMES

MEAN	3.1333	18	SUM WGT	18	100% MAX	18	99%	18	LOWEST	0.4	HIGHEST	3.2
STD DEV	3.0976	18	SUN	56.7	75% Q3	3.3	95%	18	0.4	3.6		
SKEWNESS	3.21776	18	VARIANCE	15.3857	50% MED	2	90%	6.47988	0.4	4		
USS	437.97	18	KURTOSIS	13.8022	25% Q1	0.4	10%	0.4	1.2	5.2		
CV	125.099	18	CSS	263.2	0% MIN	0.4	1%	0.4		18		
TMEAN=0	3.39141	18	STD MEAN	0.923902	RANGE	17.6						
SGN RANK	85.5	18	PROB>T	0.00347169	Q3-Q1	2.1						
NUM = 0		18	PROB>S	.000205598	MODE	2.2						

VARIABLE=COH

MOMENTS

QUANTILES(DEF=4)

EXTREMES

MEAN	14.7657	18	SUM WGT	18	100% MAX	35	99%	35	LOWEST	10.5	HIGHEST	16
STD DEV	5.62111	18	SUN	265.8	75% Q3	16.075	95%	35	10.5	16.3		
SKEWNESS	2.99372	18	VARIANCE	31.6047	50% MED	13	90%	20.7799	10.5	19.3		
USS	446.26	18	KURTOSIS	10.5928	25% Q1	11.75	10%	10.5	11	19.3		
CV	38.0709	18	CSS	53.29	0% MIN	10.5	1%	10.5	12	19.35		
TMEAN=0	11.144	18	STD MEAN	1.3507	RANGE	24.5						
SGN RANK	85.5	18	PROB>T	.000211511	Q3-Q1	4.325						
NUM = 0		18	PROB>S		MODE	12						



# INDUCE 6 CYLINDER (PROPANE)

14338 WEDNESDAY, JUNE 6, 1984 61

DATA	CL1	DET1	DET2	DET3	DET4	F01	F02	MIL	FE	VIS	TAN	TS	COR
1	0.91	671.20	5.91	294.24	-92.57	3.02	4.50	0	17	93	2.18	1.6	24.8
2	0.00	2229.94	0.00	128.31	0.00	0.00	0.00	1912	47	108	2.50	0.8	9.0
3	0.76	974.57	47.23	158.75	392.30	3.96	0.00	2382	63	114	2.51	0.8	7.0
4	1.43	2514.53	-124.69	251.32	437.45	-0.10	0.00	3759	57	129	3.54	2.0	10.0
5	1.24	769.51	-137.37	133.31	1682.73	1.11	2.37	4909	65	129	3.54	1.0	10.0
6	1.64	2468.47	-170.37	384.71	1398.32	-0.11	1.49	5556	65	123	4.04	1.2	10.0
7	1.03	3306.64	191.34	263.74	2305.37	3.14	0.00	7732	44	121	2.52	1.2	17.0
8	1.00	1390.61	44.75	531.83	537.80	2.99	2.95	7732	85	118	2.78	3.0	17.0
9	0.07	700.64	153.30	-4.43	881.94	0.61	0.00	1549	37	106	2.83	0.8	9.0
10	0.09	2100.67	1186.18	190.59	-698.39	2.46	0.00	2730	64	112	3.61	2.0	10.0
11	2.00	5981.90	957.10	169.52	3451.39	-2.18	0.00	3520	64	112	3.61	2.0	10.0
12	1.00	561.35	957.70	125.06	2655.79	-0.30	1.65	4227	65	118	3.73	2.0	10.0
13	1.61	1405.04	432.73	197.04	3622.45	-0.46	1.93	5058	65	123	4.04	2.0	10.0
14	1.00	1401.01	418.49	195.05	3833.12	-0.64	0.00	5586	78	126	3.79	2.0	8.0
15	2.18	4342.94	310.79	407.38	2708.27	1.60	0.00	6523	77	129	3.79	2.0	8.0
16	2.28	3279.40	320.87	405.28	2982.73	1.60	0.00	6523	77	129	3.79	2.0	8.0

VARIABLE	N	MEAN	STD DEV	SUM	MINIMUM	MAXIMUM
CL2	17	1.39580235	0.70510690	23.73000000	0	2.40000000
DET1	17	1537.33058024	1369.41784781	26134.62000000	-981.90000000	4342.94000000
DET2	17	202.91117647	365.00697666	3449.49000000	-170.77000000	1186.18000000
DET3	17	219.45294118	148.99895628	3730.70000000	-4.43000000	531.83000000
DET4	17	1590.79411765	1276.62832779	27043.50000000	-698.39000000	3451.39000000
FD1	17	1.17117647	1.66600526	19.91000000	-2.18000000	3.96000000
FD2	17	1.41647059	-2.01445384	24.08000000	0	7.20000000
MIL	17	4027.35294118	2328.02093905	68465.00000000	0	7732.00000000
FE	17	59.94117647	16.38776445	1019.00000000	17.00000000	85.00000000
VIS	17	117.00000000	9.18558654	1989.00000000	93.00000000	129.00000000
TAN	17	3.26411765	0.57016509	55.49000000	2.18000000	4.04000000
TS	17	1.88235294	1.07484609	32.00000000	0.40000000	4.00000000
COR	17	10.10000000	4.56631690	171.70000000	4.00000000	24.80000000



CL2	CL2	DET4	MIL	VIS	DET3	FE	TAN	IS	DET2	COB	FD1	FD2
1.00000	0.62032	0.60148	0.58314	0.53590	0.51485	0.43882	0.38922	0.29188	0.24039	-0.22513	-0.13671	0.06133
DET1	DET1	DET3	MIL	VIS	TS	FE	CL2	CUH	DET4	FD2	DET2	TAN
1.00000	0.73379	0.62993	0.52502	0.50813	0.38451	0.32600	0.29188	-0.24018	0.21218	-0.05957	-0.05341	-0.04810
DET2	DET2	DET4	FE	FD2	TAN	IS	TS	FD1	DET1	MIL	VIS	DET3
1.00000	0.78004	0.32782	-0.24717	0.24039	0.14906	0.13378	-0.11980	-0.10350	-0.05341	0.05157	-0.03188	0.00286
DET3	DET3	TS	CL2	CUH	FE	FE	VIS	COB	DET4	MIL	TAN	DET2
1.00000	0.62993	0.61503	0.53590	0.50351	0.44821	0.45053	0.38285	0.30928	0.28461	0.19191	-0.04158	0.00286
DET4	DET4	FE	CL2	TAN	VIS	MIL	TS	COB	DET3	FD2	DET1	FD1
1.00000	0.78004	0.65837	0.62032	0.58336	0.52718	0.52474	0.40041	-0.30498	0.28461	-0.23954	0.21218	-0.18003
FD1	FD1	TAN	DET3	CUH	DET4	CL2	FE	DET2	ED2	VIS	IS	MIL
1.00000	0.73379	-0.49604	0.48217	0.20843	-0.18003	-0.13671	-0.13060	-0.11980	0.09588	-0.05804	0.03931	0.03309
FD2	FD2	CUH	DET3	TAN	IS	MIL	DET2	DET4	VIS	CL2	DET1	FE
1.00000	0.60897	0.30551	-0.45174	0.39523	-0.35231	-0.24717	-0.23954	-0.14950	0.09588	0.06133	-0.05957	-0.01294
MIL	MIL	VIS	CUH	TAN	CL2	DET1	DET4	FE	DET3	TS	DET2	FD1
1.00000	0.78779	-0.68717	0.64476	0.60148	0.52502	0.52474	-0.35231	0.34916	0.19191	0.08561	0.05157	0.03309
FE	FE	VIS	DET4	CL2	DET3	TAN	COB	MIL	DET2	DET1	FD1	FD2
1.00000	0.76438	0.65837	0.53590	0.51485	0.45053	0.44197	-0.35630	0.34916	0.32782	0.32600	-0.13060	-0.01294
VIS	VIS	FE	TAN	CUH	CL2	DET4	DET3	IS	FD2	FD1	DET2	DET3
1.00000	0.78779	0.76438	0.63940	-0.59811	0.58314	0.52474	0.50813	0.38285	0.37476	-0.14950	-0.05804	-0.03188
TAN	TAN	MIL	VIS	DET4	COB	FD2	FE	CL2	DET2	IS	DET1	DET3
1.00000	0.64476	0.63940	0.58336	0.58336	-0.49604	-0.45174	0.44197	0.43882	0.14906	0.05550	-0.04810	-0.04158
TS	TS	DET4	FE	FD2	CL2	DET1	VIS	COB	DET2	MIL	TAN	FD1
1.00000	0.61503	0.53608	0.40041	0.39523	0.38623	0.38551	0.37476	0.15179	0.13378	0.08561	0.05550	0.03931
COB	COB	MIL	FD2	TAN	FE	DET3	DET4	DET1	CL2	FD1	TS	DET2
1.00000	-0.68717	0.60897	-0.59311	-0.47678	-0.35630	0.30928	-0.30498	-0.24018	-0.22513	0.20843	0.15179	-0.10350

CL2	CL2	DET4	MIL	VIS	DET3	FE	TAN	IS	DET2	COB	FD1	FD2
1.00000	0.62032	0.60148	0.58314	0.53590	0.51485	0.43882	0.38922	0.29188	0.24039	-0.22513	-0.13671	0.06133
DET1	DET1	DET3	MIL	VIS	TS	FE	CL2	CUH	DET4	FD2	DET2	TAN
1.00000	0.73379	0.62993	0.52502	0.50813	0.38451	0.32600	0.29188	-0.24018	0.21218	-0.05957	-0.05341	-0.04810
DET2	DET2	DET4	FE	FD2	TAN	IS	TS	FD1	DET1	MIL	VIS	DET3
1.00000	0.78004	0.32782	-0.24717	0.24039	0.14906	0.13378	-0.11980	-0.10350	-0.05341	0.05157	-0.03188	0.00286
DET3	DET3	TS	CL2	CUH	FE	FE	VIS	COB	DET4	MIL	TAN	DET2
1.00000	0.62993	0.61503	0.53590	0.50351	0.44821	0.45053	0.38285	0.30928	0.28461	0.19191	-0.04158	0.00286
DET4	DET4	FE	CL2	TAN	VIS	MIL	TS	COB	DET3	FD2	DET1	FD1
1.00000	0.78004	0.65837	0.62032	0.58336	0.52718	0.52474	0.40041	-0.30498	0.28461	-0.23954	0.21218	-0.18003
FD1	FD1	TAN	DET3	CUH	DET4	CL2	FE	DET2	ED2	VIS	IS	MIL
1.00000	0.73379	-0.49604	0.48217	0.20843	-0.18003	-0.13671	-0.13060	-0.11980	0.09588	-0.05804	0.03931	0.03309
FD2	FD2	CUH	DET3	TAN	IS	MIL	DET2	DET4	VIS	CL2	DET1	FE
1.00000	0.60897	0.30551	-0.45174	0.39523	-0.35231	-0.24717	-0.23954	-0.14950	0.09588	0.06133	-0.05957	-0.01294
MIL	MIL	VIS	CUH	TAN	CL2	DET1	DET4	FE	DET3	TS	DET2	FD1
1.00000	0.78779	-0.68717	0.64476	0.60148	0.52502	0.52474	-0.35231	0.34916	0.19191	0.08561	0.05157	0.03309
FE	FE	VIS	DET4	CL2	DET3	TAN	COB	MIL	DET2	DET1	FD1	FD2
1.00000	0.76438	0.65837	0.53590	0.51485	0.45053	0.44197	-0.35630	0.34916	0.32782	0.32600	-0.13060	-0.01294
VIS	VIS	FE	TAN	CUH	CL2	DET4	DET3	IS	FD2	FD1	DET2	DET3
1.00000	0.78779	0.76438	0.63940	-0.59811	0.58314	0.52474	0.50813	0.38285	0.37476	-0.14950	-0.05804	-0.03188
TAN	TAN	MIL	VIS	DET4	COB	FD2	FE	CL2	DET2	IS	DET1	DET3
1.00000	0.64476	0.63940	0.58336	0.58336	-0.49604	-0.45174	0.44197	0.43882	0.14906	0.05550	-0.04810	-0.04158
TS	TS	DET4	FE	FD2	CL2	DET1	VIS	COB	DET2	MIL	TAN	FD1
1.00000	0.61503	0.53608	0.40041	0.39523	0.38623	0.38551	0.37476	0.15179	0.13378	0.08561	0.05550	0.03931
COB	COB	MIL	FD2	TAN	FE	DET3	DET4	DET1	CL2	FD1	TS	DET2
1.00000	-0.68717	0.60897	-0.59311	-0.47678	-0.35630	0.30928	-0.30498	-0.24018	-0.22513	0.20843	0.15179	-0.10350

F



UNIVARIATE

VARIABLE=C12

MOMENTS

N 17  
MEAN 1.3958  
STD DEV 0.70107  
SKEWNESS -0.602736  
CURTOSIS 0.702701  
CV 50.5133  
TIMEAN=0  
SGN RANK 8.16241  
NUM = 0

QUANTILES(DEF=4)

100% MAX 2.4  
75% Q3 1.915  
50% MED 0.9  
25% Q1 0  
0% MIN 0  
RANGE 2.4  
Q3-Q1 1.015  
MODE 0

EXTREMES

LOWEST 0  
HIGHEST 1.9  
2.4  
2.4  
2.4

VARIABLE=NET1

MOMENTS

N 17  
MEAN 1537.33  
STD DEV 1369.42  
SKEWNESS 0.310874  
CURTOSIS 70182435  
CV 89.0776  
TIMEAN=0  
SGN RANK 4.62866  
NUM = 0

QUANTILES(DEF=4)

100% MAX 4342.94  
75% Q3 2491.5  
50% MED 1390.61  
25% Q1 616.275  
0% MIN -981.9  
RANGE 5324.84  
Q3-Q1 1875.22  
MODE -981.9

EXTREMES

LOWEST -981.9  
HIGHEST 4342.94  
2491.5  
2491.5  
4342.94

VARIABLE=NET2

MOMENTS

N 17  
MEAN 202.917  
STD DEV 365.007  
SKEWNESS 2.81794  
CURTOSIS 1.142583  
CV 179.845  
TIMEAN=0  
SGN RANK 2.28218  
NUM = 0

QUANTILES(DEF=4)

100% MAX 1186.18  
75% Q3 425.61  
50% MED 47.23  
25% Q1 -170.77  
0% MIN -170.77  
RANGE 1356.95  
Q3-Q1 546.69  
MODE -170.77

EXTREMES

LOWEST -170.77  
HIGHEST 1186.18  
425.61  
47.23  
1186.18

VARIABLE=NET3

MOMENTS

N 17  
MEAN 219.453  
STD DEV 148.899  
SKEWNESS 0.1173624  
CURTOSIS 1173624  
CV 67.8956  
TIMEAN=0  
SGN RANK 6.07271  
NUM = 0

QUANTILES(DEF=4)

100% MAX 531.83  
75% Q3 392.472  
50% MED 195.92  
25% Q1 127.133  
0% MIN -4.43  
RANGE 536.26  
Q3-Q1 212.34  
MODE -4.43

EXTREMES

LOWEST -4.43  
HIGHEST 531.83  
392.472  
195.92  
531.83



UNIVARIATE

VARIABLE=DET4

MOMENTS

N 17  
MEAN 1590.79  
STD DEV 1276.64  
SKEWNESS -0.288703  
KURTOSIS 6.897119  
USS 80.251  
CV 5.13776  
TIMEAL=0  
SGN RANK 63  
NUM = 0

QUANTILES(DEF=4)

100% MAX 3451.39  
75% Q3 2682.03  
50% MED 1682.73  
25% Q1 -258.01  
0% MIN -698.39  
RANGE 4149.78  
Q3-Q1 2216.98  
MODE -698.39

EXTREMES

LOWEST -698.39  
HIGHEST 3451.39  
2655.79  
2708.27  
2833.73  
2982.73  
3451.39

VARIABLE=FD1

MOMENTS

N 17  
MEAN 1171.14  
STD DEV 1666.01  
SKEWNESS -0.927273  
KURTOSIS 67.7273  
USS 67.7273  
CV 142.251  
TIMEAL=0  
SGN RANK 46  
NUM = 0

QUANTILES(DEF=4)

100% MAX 3.96  
75% Q3 2.795  
50% MED 1.11  
25% Q1 -0.105  
0% MIN -2.18  
RANGE 6.14  
Q3-Q1 2.29  
MODE -2.18

EXTREMES

LOWEST -2.18  
HIGHEST 3.96  
-0.64  
-0.11  
-0.11  
-2.18  
3.96

VARIABLE=FD2

MOMENTS

N 17  
MEAN 1416.47  
STD DEV 2014.45  
SKEWNESS 1.75037  
KURTOSIS 99.037  
USS 142.216  
CV 2.89448  
TIMEAL=0  
SGN RANK 18  
NUM = 0

QUANTILES(DEF=4)

100% MAX 7.2  
75% Q3 2.18  
50% MED 0  
25% Q1 0  
0% MIN 0  
RANGE 7.2  
Q3-Q1 2.18  
MODE 0

EXTREMES

LOWEST 0  
HIGHEST 7.2  
0  
0  
0  
0  
7.2

VARIABLE=MIL

MOMENTS

N 17  
MEAN 4027.35  
STD DEV 2328.02  
SKEWNESS -0.313616  
KURTOSIS 36.244723  
USS 57.8052  
CV 7.13275  
TIMEAL=0  
SGN RANK 60  
NUM = 0

QUANTILES(DEF=4)

100% MAX 7732  
75% Q3 6026.5  
50% MED 4227  
25% Q1 2147  
0% MIN 0  
RANGE 7732  
Q3-Q1 3879.5  
MODE 0

EXTREMES

LOWEST 0  
HIGHEST 7732  
0  
0  
0  
0  
7732



UNIVARIATE

VARIABLE=FE

MOMENTS

N 17  
MEAN 59.9412  
STD DEV 16.3876  
SKEWNESS -1.12721  
CURTOSIS 65.377  
CV 27.3397  
T-MEAN=0  
SGN RANK 15.001  
NUM = 0

QUANTILES(DEF=4)

100% MAX 85  
75% Q3 67  
50% MED 64  
25% Q1 50  
0% MIN 17  
RANGE 68  
Q3-Q1 17  
MODE 63

EXTREMES

LOWEST 17  
HIGHEST 85  
17  
37  
47  
53  
78  
85

VARIABLE=VTS

MOMENTS

N 17  
MEAN 9.10559  
STD DEV 1.01831  
SKEWNESS -1.01831  
CURTOSIS 23.4083  
CV 7.85093  
T-MEAN=0  
SGN RANK 52.5174  
NUM = 0

QUANTILES(DEF=4)

100% MAX 129  
75% Q3 123  
50% MED 118  
25% Q1 112  
0% MIN 93  
RANGE 36  
Q3-Q1 11.5  
MODE 118

EXTREMES

LOWEST 93  
HIGHEST 129  
93  
106  
108  
112  
112  
129

VARIABLE=TS

MOMENTS

N 17  
MEAN 1.88235  
STD DEV 1.07245  
SKEWNESS 0.749749  
CURTOSIS 78.72  
CV 57.1012  
T-MEAN=0  
SGN RANK 76.2  
NUM = 0

QUANTILES(DEF=4)

100% MAX 4  
75% Q3 2.6  
50% MED 1.6  
25% Q1 0.4  
0% MIN 0.4  
RANGE 3.6  
Q3-Q1 1.2  
MODE 1.2

EXTREMES

LOWEST 0.4  
HIGHEST 4  
0.4  
0.8  
0.8  
1.2  
3.6  
3.6

VARIABLE=CDH

MOMENTS

N 17  
MEAN 10.1  
STD DEV 4.56632  
SKEWNESS 2.37623  
CURTOSIS 2067.79  
CV 45.2111  
T-MEAN=0  
SGN RANK 9.1765  
NUM = 0

QUANTILES(DEF=4)

100% MAX 24.8  
75% Q3 10  
50% MED 9  
25% Q1 8  
0% MIN 4  
RANGE 20.8  
Q3-Q1 2  
MODE 10

EXTREMES

LOWEST 4  
HIGHEST 24.8  
4  
6.5  
7.8  
8  
24.8

F



APPENDIX J  
1977 GM OLDS 350 CID V8 ENGINE  
ASTM SEQUENCE III-D TEST

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J-24 ASTM Sequence III-D Fail Data

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J-25 ASTM Sequence III-D Fail Correlation Matrix

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\* These models were all developed early in the study and are based on a slightly different data collection methodology than that outlined in Table 1.



TABLE J-1

## PRELIMINARY INFRARED PEAKS AND REGIONS USED FOR ASTM III-D CALCULATIONS

IR VARIABLE	PEAK/REGION	CONTAMINATION/DETERIORATION PRODUCT
CL1	3800 $\text{cm}^{-1}$	carbon loading (soot)
CL2	1980 $\text{cm}^{-1}$	carbon loading (soot)
Det 1	3400 $\text{cm}^{-1}$	hydroxyl
Det 2	1764 $\text{cm}^{-1}$	oxidation
Det 3	1710 $\text{cm}^{-1}$	oxidation
Det 4	1618 $\text{cm}^{-1}$	nitration/carboxylates
Det 5	1590 $\text{cm}^{-1}$	aromatic
Det 6	1396 $\text{cm}^{-1}$	oxidation/nitration
Det 7	1456 $\text{cm}^{-1}$	oxidation/nitration
Det 8	1226 $\text{cm}^{-1}$	oxidation/nitration/sulfation
Det 9	1130 $\text{cm}^{-1}$	oxidation/sulfation
Det 10	1100 $\text{cm}^{-1}$	oxidation/sulfation
Det 11	1070 $\text{cm}^{-1}$	oxidation
Det 12	490 $\text{cm}^{-1}$	aromatic
Det 13	660 $\text{cm}^{-1}$	ZDDP depletion
Det 14	2640 $\text{cm}^{-1}$	carboxylic acid
Det I1	3600-3060 $\text{cm}^{-1}$	hydroxyl
Det I2	1880-1650 $\text{cm}^{-1}$	oxidation
Det I3	1880-1520 $\text{cm}^{-1}$	oxidation/nitration/carboxylates
Det I4	1650-1520 $\text{cm}^{-1}$	nitration/carboxylates
Det I5	1300-1000 $\text{cm}^{-1}$	oxidation/nitration/sulfation







VARIABLE	N	MEAN	STD DEV	SUM	MINIMUM	MAXIMUM
CCL2	57	1.74473684	1.62374029	99.4500000	0.21000000	7.72000000
DE11	56	993.22250000	2266.52084282	55620.4600000	-2031.69000000	5576.72000000
DE12	56	2071.86553571	2529.86993675	116024.4700000	-47.02000000	7375.45000000
DE13	56	1643.98160714	1699.85080421	92062.9700000	-50.29000000	5361.98000000
DE14	56	6962.06178571	7131.14704623	389875.4600000	-113.86000000	22948.13000000
FD1	56	3.01035714	5.27954611	168.5800000	-3.12000000	14.46000000
FD2	57	1.63000000	3.24518600	92.9100000	0	16.44000000
FD13	56	388.40928571	766.45660938	21750.9200000	-453.06000000	2020.67000000
ZN1	56	-4.36857143	3.59043093	-244.6400000	-9.96000000	2.05000000
HRS	57	27.84214035	21.11644371	1587.0020000	0.16700000	66.00000000
FE	51	416.11764706	323.13338714	21222.0000000	19.00000000	998.00000000
V15	49	507.28571429	848.60819876	24857.0000000	80.00000000	4900.00000000
TAN	57	8.69964912	6.24951311	495.8800000	1.42000000	23.00000000
TS	57	5.82456140	8.30525395	332.0000000	0.40000000	48.00000000
CO8	57	16.51754386	10.81168552	941.5000000	2.00000000	57.00000000

## CORRELATION COEFFICIENTS / NUMBER OF OBSERVATIONS

[illegible]



CORRELATION COEFFICIENTS / NUMBER OF OBSERVATIONS

DET4

DET4 DET3 TAN DET2 DET1 FDI3 FDI1 CL2 HP5 VIS TS FE ZNI COR  
1.00000 0.92260 0.98354 0.98306 0.92982 0.89945 0.83252 0.80122 0.76776 0.75688 0.60915 0.38172 -0.26596

FD2 GC 0.00000 0

FD1

FD1 FDI3 DET2 DET1 DET4 DET3 TAN CL2 VIS MRS TS FE ZNI FDI2  
1.00000 0.97437 0.95846 0.95290 0.92982 0.92971 0.89687 0.87066 0.77209 0.74168 0.63260 0.55835 0.53233 -0.35900

COB GC 0.00000 0

FD2

FD2 DET1 DET3 FDI1 FDI3 DET2 TAN DET4 DET3 TAN CL2 ZNI VIS MRS TS FE  
1.00000 -0.42460 -0.35900 -0.35261 -0.29882 -0.27370 -0.27227 -0.25826 -0.25577 -0.25092 -0.19371 -0.18364 -0.12507 -0.10817

COB GC 0.00000 0

FD13

FD13 FDI1 DET2 DET3 DET4 DET1 TAN CL2 VIS MRS TS FE FDI2  
1.00000 0.97437 0.97390 0.94241 0.93613 0.91807 0.91604 0.89750 0.82199 0.76362 0.65289 0.55489 0.50285 -0.35291

COB GC 0.00000 0

ZNI

ZNI CL2 DET1 FDI3 FDI1 DET2 DET3 DET4 DET1 DET2 DET3 FDI1 FDI3 DET2 TAN VIS FDI2 TS COR  
1.00000 0.60680 0.55666 0.55489 0.53233 0.53233 0.39237 0.38172 0.35957 0.33193 0.27447 -0.25577 0.18891 0.07539

MRS GC 0.00000 0

MRS

MRS TAN DET4 DET3 DET2 DET1 FDI3 FDI1 CL2 TS FDI1 FDI3 DET1 VIS FE COR  
1.00000 0.84034 0.80122 0.79115 0.74213 0.65289 0.64550 0.63846 0.63260 0.63055 0.50105 0.35931 -0.22153 -0.12507

ZNI GC 0.00000 0

FE

FE CL2 DET3 DET2 DET1 FDI3 FDI1 TAN FDI3 DET1 TS ZNI MRS TS COR VIS  
1.00000 0.69247 0.62324 0.60915 0.60627 0.55835 0.55783 0.50265 0.46926 0.40883 0.35957 0.35931 -0.26923 0.17754

FD2 GC 0.00000 0

VIS

VIS FDI3 DET2 DET1 FDI1 FDI3 DET2 TAN DET4 DET3 TAN CL2 ZNI MRS TS FDI2 FE  
1.00000 0.82199 0.81747 0.77721 0.77209 0.76776 0.76640 0.76581 0.63055 0.61354 0.59633 0.27447 -0.18364 0.17754



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CORRELATION COEFFICIENTS / NUMBER OF OBSERVATIONS

VIS

COR 0.17551 GC  
49 0.00000 0

TAN

TAN DET4 0.98354 DET3 0.97804 DET2 0.96464 DET13 0.91604 FD13 0.89684 FD1 0.84034 MRS 0.82767 CL2 0.82767 DET1 0.78583 VIS 0.76581 TS 0.65938 FE 0.55783 ZN1 0.33793 -0.27370 FD2 0.27370

COR -0.25775 GC  
57 0.00000 0

TS

TS DET3 0.80605 CL2 0.80322 DET2 0.76680 DET13 0.76362 FD13 0.75688 DET4 0.74198 FD1 0.68803 DET1 0.65938 MRS 0.63846 VIS 0.61354 FE 0.40885 -0.36262 ZN1 0.19371 FD2 0.19371

ZN1 0.18891 GC  
56 0.00000 0

CUB

COR 0.00000 TS -0.36262 DET1 0.00000 DET2 0.00000 DET3 0.00000 DET4 0.00000 DET13 0.00000 DET1 0.00000 CL2 -0.27132 CL3 -0.26923 FE -0.26923 DET4 -0.26923 MRS -0.25775 ZN1 -0.17541 VIS -0.07539 FD2 0.07539

GC 0.01330 GC  
57 0.00000 0

GC

CL2 DET1 0.00000 DET2 0.00000 DET3 0.00000 DET4 0.00000 FD1 0.00000 FD2 0.00000 FD13 0.00000 ZN1 0.00000 MRS 0.00000 FE 0.00000 VIS 0.00000 TAN 0.00000 TS 0.00000

COR 0.00000 GC  
0 0.00000 0

76



WARNING: 4 OBSERVATIONS DELETED DUE TO MISSING VALUES.

STEP 1 VARIABLE DET199 ENTERED

R SQUARE = 0.87531597 C(P) = 49.80727000

OF	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
REGRESSION	43.32328829	43.32328829	336.97	0.0001
ERROR	6.17116335	0.12856601		
TOTAL	49.49445164			

R VALUE	STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	5.04447058			
DET199	0.00075681	43.32328829	336.97	0.0001

THE ABOVE MODEL IS THE BEST 1 VARIABLE MODEL FOUND.

STEP 2 VARIABLE DET15 ENTERED

R SQUARE = 0.88553775 C(P) = 62.31322248

OF	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
REGRESSION	43.82920560	21.91460483	181.81	0.0001
ERROR	5.66524704	0.12053717		
TOTAL	49.49445164			

R VALUE	STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	4.94331058			
DET15	0.00476580	0.50592131	4.20	0.0461
DET199	0.00053429	2.56955436	21.32	0.0001

STEP 2 DET199 REPLACED BY DET1414

R SQUARE = 0.89489372 C(P) = 53.62333589

OF	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
REGRESSION	44.29227857	22.14613928	200.08	0.0001
ERROR	5.20217207	0.11068464		
TOTAL	49.49445164			

R VALUE	STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	4.92498102			
DET15	0.00740552	2.22356739	20.99	0.0001
DET1414	0.01293856	3.03262303	27.40	0.0001

STEP 2 DET15 REPLACED BY DET8

R SQUARE = 0.90254746 C(P) = 46.51449923

OF	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
REGRESSION	44.67109613	22.33554807	217.64	0.0001
ERROR	4.82336051	0.10262469		
TOTAL	49.49445164			

R VALUE	STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	4.95556592			
DET8	0.02485660	2.70238494	26.33	0.0001
DET1414	0.01096380	1.84315270	17.96	0.0001

THE ABOVE MODEL IS THE BEST 2 VARIABLE MODEL FOUND.



STEP 3 VARIABLE DET1414 ENTERED

F SQUARE = 0.91144002 C(P) = 40.25533835

DE	DF	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
REGRESSION	3	45.11122846	15.03707615	157.81	0.0001
ERROR	46	4.3822818	0.09528757		
TOTAL	49	49.4945664			

R VALUE	STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	4.91307669			
DET1414	0.00757543	2.35634636	24.73	0.0001
DET1414	0.00012180	0.44013233	4.62	0.0369
DET1414	0.00458592	1.67537105	17.58	0.0001

THE ABOVE MODEL IS THE BEST 3 VARIABLE MODEL FOUND.

STEP 4 VARIABLE DET15 ENTERED

R SQUARE = 0.91647525 C(P) = 37.57828482

DE	DF	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
REGRESSION	4	45.36044454	11.34011113	123.44	0.0001
ERROR	45	4.13401211	0.09186694		
TOTAL	49	49.4945664			

R VALUE	STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	4.86545315			
DET1414	0.00354239	0.00239360	0.24921603	0.1065
DET15	0.00970475	0.00888237	1.02743184	0.0017
DET1414	0.00028453	0.00012124	0.54215519	0.0192
DET1414	0.01955578	0.00451148	1.73142034	0.0001

THE ABOVE MODEL IS THE BEST 4 VARIABLE MODEL FOUND.

STEP 5 VARIABLE DET22 ENTERED

R SQUARE = 0.91842694 C(P) = 37.76553942

DE	DF	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
REGRESSION	5	45.45704259	9.09140852	99.08	0.0001
ERROR	44	4.03741403	0.09175941		
TOTAL	49	49.4945664			

R VALUE	STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	4.85835819			
DET1414	0.00387939	0.00239298	0.24115558	0.1121
DET22	0.00024577	0.00025503	0.09659825	0.3105
DET15	0.03504163	0.01028882	1.06435870	0.0014
DET1414	0.00047156	0.00021115	0.45841542	0.0305
DET1414	0.01646129	0.00543160	0.84154995	0.0041

STEP 5 DET1414 REPLACED BY DET1414

R SQUARE = 0.92008835 C(P) = 35.38648925

DE	DF	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
REGRESSION	5	45.58381305	9.11676361	102.58	0.0001
ERROR	44	3.91063860	0.08987815		
TOTAL	49	49.4945664			

R VALUE	STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	4.81326742			
DET1414	0.00423262	0.00234732	0.28531274	0.0801
DET15	0.00043653	0.00021122	0.53755471	0.0179
DET1414	0.04230631	0.01018126	1.22281938	0.0031
DET139	0.00055787	0.00020511	0.72656833	0.0065
DET1414	0.13462274	0.04079454	0.96832541	0.0019



STATISTICAL ANALYSIS SYSTEM 21:45 THURSDAY, MARCH 24, 1983 4

MAXIMUM R-SQUARE IMPROVEMENT FOR DEPENDENT VARIABLE LVI  
R SQUARE = 0.92276428 C(P) = 33.7369321

STEP 5 DET22 REPLACED BY DET142

DE	R VALUE	STD ERROR	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
REGRESSION			45.67171683	9.13434337	105.14	0.0001
ERROR			3.82273582	0.08688045		
TOTAL			49.49445264			
INTERCEPT	4.82065148					
DET15	0.00403684	0.00233792	0.25902649		2.98	0.0912
DET142	0.00058888	0.00026048	0.00026048		0.00	0.0102
DET14	0.03888885	0.00911166	1.42379219		16.39	0.0002
DET13	-0.00051622	0.00016528	0.00016528		0.30	0.0039
DET1414	0.18442042	0.03937698	1.58937645		18.29	0.0001

THE ABOVE MODEL IS THE BEST 5 VARIABLE MODEL FOUND.

STEP 6 VARIABLE DET4 ENTERED R SQUARE = 0.92677741 C(P) = 32.00958210

DE	R VALUE	STD ERROR	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
REGRESSION			45.87034405	7.64505735	90.71	0.0001
ERROR			3.62411255	0.08428169		
TOTAL			49.49445264			
INTERCEPT	4.84363108					
DET14	-0.03186920	0.02202328	0.19852727		2.36	0.1321
DET15	0.00388795	0.00230251	0.25274195		3.00	0.0905
DET142	0.00094152	0.00026275	0.00026275		0.00	0.0033
DET14	0.05793743	0.01638855	1.05334417		12.50	0.0010
DET13	-0.00048959	0.00016756	0.00016756		0.30	0.0054
DET1414	0.11375704	0.05263507	0.39391864		4.67	0.0362

STEP 6 DET142 REPLACED BY DET24

R SQUARE = 0.97775748 C(P) = 31.09928664

DE	R VALUE	STD ERROR	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
REGRESSION			45.91885216	7.65316203	92.04	0.0001
ERROR			3.57560649	0.08315359		
TOTAL			49.49445264			
INTERCEPT	4.92703084					
DET24	-0.05324728	0.02485245	0.38171345		4.59	0.0379
DET15	0.00444756	0.00028491	0.00028491		0.30	0.0581
DET24	0.00105119	0.00025466	0.00025466		0.43	0.0024
DET14	0.07176629	0.01862182	1.23422903		14.84	0.0004
DET13	-0.00062074	0.00019414	0.00019414		0.22	0.0026
DET1414	0.13564498	0.05118777	0.58352370		7.02	0.0112

THE ABOVE MODEL IS THE BEST 6 VARIABLE MODEL FOUND.

FI



21:45 THURSDAY, MARCH 24, 1983 5

STATISTICAL ANALYSIS SYSTEM  
MAXIMUM R-SQUARE IMPROVEMENT FOR DEPENDENT VARIABLE LVI  
STEP 7 VARIABLE DET14 ENTERED F SQUARE = 0.93255394 C(P) = 28.64430170

DE	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
REGRESSION	46.15625057	6.59375008	82.96	0.0001
ERROR	3.33820607	0.07948110		
TOTAL	49.49445664			
R VALUE	STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	4.80956403			
DET14	-0.07167507	0.02648781	7.28	0.0100
DET15	-0.00169270	0.00225601	4.60	0.0324
DET16	0.02142876	0.0038397	13.70	0.0006
DET17	0.07855966	0.01876747	17.99	0.0001
DET18	-0.00057317	0.00019175	8.93	0.0047
DET19	-0.31944832	0.11753831	7.36	0.0095
DET20	-0.01395344	0.0009105	2.99	0.0913

STEP 7 DET14 REPLACED BY DET144 P SQUARE = 0.93374247 C(P) = 27.54038477

DE	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
REGRESSION	46.21507635	6.60215377	84.56	0.0001
ERROR	3.27938026	0.07808044		
TOTAL	49.49445664			
R VALUE	STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	4.75007156			
DET15	0.00467432	0.00223095	4.39	0.0422
DET14	-0.00203635	0.00071263	8.17	0.0066
DET16	0.00285000	0.00097531	12.91	0.0009
DET17	0.04766903	0.0098816	22.78	0.0001
DET18	-0.00066347	0.00019565	11.49	0.0015
DET19	-0.20391455	0.03208559	10.66	0.0022
DET20	-0.02101464	0.0009105	5.46	0.0243

STEP 7 DET18 REPLACED BY DET1414 R SQUARE = 0.94113271 C(P) = 20.67628771

DE	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
REGRESSION	46.58085220	6.65440746	95.92	0.0001
ERROR	2.91600444	0.06937153		
TOTAL	49.49685664			
R VALUE	STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	4.82505797			
DET15	0.00467432	0.00223095	4.58	0.0382
DET14	-0.00203635	0.00071263	14.02	0.0003
DET16	0.00285000	0.00097531	12.13	0.0012
DET17	0.04766903	0.0098816	10.46	0.0020
DET18	-0.00066347	0.00019565	7.60	0.0086
DET19	-0.20391455	0.03208559	22.27	0.0001
DET20	-0.02101464	0.0009105	18.21	0.0001



MAXIMUM P-SQUARE IMPROVEMENT FOR DEPENDENT VARIABLE LVI

STEP 7 DET44 REPLACED BY DET154

F SQUARE = 0.94239037 C(P) = 19.50817032

REGRESSION 7 46.64309515 0.00000000 98.15 0.0001  
 ERROR 42 2.85135749 0.00000000  
 TOTAL 49 49.49445264

INTERCEPT 4.71972434 0.00000000 0.95956324 14.13 0.0005  
 DET15 0.00000000 0.00000000 0.00000000 13.81 0.0006  
 DET24 0.00000000 0.00000000 0.00000000 15.24 0.0003  
 DET154 0.00000000 0.00000000 0.00000000 19.41 0.0001  
 DET14 0.00000000 0.00000000 0.00000000 9.01 0.0045  
 DET214 0.00000000 0.00000000 0.00000000 21.20 0.0001  
 DET1414 0.00000000 0.00000000 0.00000000 21.37 0.0001

STEP 7 DET24 REPLACED BY DET22 R SQUARE = 0.94609808 C(P) = 16.0642669

REGRESSION 7 46.82661027 0.00000000 105.31 0.0001  
 ERROR 42 2.66346328 0.00000000  
 TOTAL 49 49.49007355

INTERCEPT 4.75676890 0.00000000 0.70779706 11.14 0.0018  
 DET15 0.00000000 0.00000000 1.12139691 17.65 0.0001  
 DET22 0.00000000 0.00000000 1.12466772 17.71 0.0001  
 DET154 0.00000000 0.00000000 1.03629713 16.31 0.0002  
 DET14 0.00000000 0.00000000 0.63081810 10.91 0.0020  
 DET214 0.00000000 0.00000000 1.72413217 27.44 0.0001  
 DET1414 0.00000000 0.00000000 1.64302198 25.87 0.0001

THE ABOVE MODEL IS THE BEST 7 VARIABLE MODEL FOUND.

STEP 8 VARIABLE DET142 ENTERED

R SQUARE = 0.95214036 C(P) = 12.45232205

REGRESSION 8 47.12566958 0.00000000 101.96 0.0001  
 ERROR 41 2.36878706 0.00000000  
 TOTAL 49 49.49445664

INTERCEPT 4.74566614 0.00000000 0.86701817 15.01 0.0004  
 DET15 0.00000000 0.00000000 0.81574271 14.12 0.0005  
 DET22 0.00000000 0.00000000 0.29005931 5.48 0.0282  
 DET154 0.00000000 0.00000000 0.39044653 6.41 0.0120  
 DET14 0.00000000 0.00000000 0.42886163 8.31 0.0063  
 DET214 0.00000000 0.00000000 0.84022929 14.37 0.0005  
 DET1414 0.00000000 0.00000000 1.41393867 24.47 0.0001  
 DET1414 0.00000000 0.00000000 1.15875091 20.06 0.0001



S T A T I S T I C A L   A N A L Y S I S   S Y S T E M   21:45 THURSDAY, MARCH 24, 1983   7

MAXIMUM R-SQUARE IMPROVEMENT FOR DEPENDENT VARIABLE LVI

STEP 8   DETR REPLACED BY DET4

R SQUARE = 0.95360988   C(P) = 11.08742354

OF		SUM OF SQUARES	MEAN SQUARE	F	PROB>F
REGRESSION		47.19840265	5.8990033	105.35	0.0001
ERROR		2.29605395	0.05600132		
TOTAL		49.49445664			
R VALUE		STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT		4.70131145	0.55259656	9.87	0.0031
DET4		0.04504073	1.35031795	24.11	0.0001
DET5		0.00011946	1.26143774	22.53	0.0001
DET12		0.00394806	0.48618145	8.68	0.0053
DET17		-0.00372062	0.56034734	10.01	0.0029
DET154		-0.00070569	1.01359648	18.10	0.0001
DET1414		-0.12757431	1.94169129	34.67	0.0001
DET1214		0.15284321	1.71561139	30.64	0.0001

THE ABOVE MODEL IS THE BEST 8 VARIABLE MODEL FOUND.



STATISTICAL ANALYSIS SYSTEM 19:10 WEDNESDAY, MARCH 23, 1983 1

MAXIMUM R-SQUARE IMPROVEMENT FOR DEPENDENT VARIABLE TAN

STEP 1 VARIABLE DET15 ENTERED

R SQUARE = 0.96890130 C(P) = 14.93827212

REGRESSION	1	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
ERROR	52	2015.35863325	2015.35863325	1620.10	0.0001
TOTAL	53	64.68670004	1.24397507		
		2080.04533333			
	R VALUE	STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	2.59033794				
DET15	0.08572313	0.00212575	2015.35863325	1620.10	0.0001
-----					
THE ABOVE MODEL IS THE BEST 1 VARIABLE MODEL FOUND.					
STEP 2 VARIABLE DET11 ENTERED	R SQUARE = 0.97397287	C(P) = 6.34816549			
REGRESSION	2	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
ERROR	51	2025.90771362	1012.95385681	954.25	0.0001
TOTAL	53	56.13761871	1.06152196		
		2080.04533333			
	R VALUE	STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	2.53409340				
DET15	0.09184919	0.00276531	1171.09476364	1103.22	0.0001
DET11	-0.01386969	0.00439571	10.54908037	9.94	0.0027

THE ABOVE MODEL IS THE BEST 2 VARIABLE MODEL FOUND.



STEP 1 VARIABLE DET44 ENTERED

R SQUARE = 0.71162217

C(P) = 250.26943914

DF	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
REGRESSION	0.54338942	0.54338942	128.32	0.0001
ERROR	0.22020317	0.00220203		
TOTAL	0.76359259			

R VALUE	STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	0.04601273			
DET44	0.00010303	0.54338942	128.32	0.0001

THE ABOVE MODEL IS THE BEST 1 VARIABLE MODEL FOUND.

STEP 2 VARIABLE DET313 ENTERED R SQUARE = 0.82479130 C(P) = 134.61591347

DF	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
REGRESSION	0.62980453	0.31490226	120.04	0.0001
ERROR	0.13338807	0.00266732		
TOTAL	0.76359259			

R VALUE	STD ERROR	TYPE II SS	F	PROB>P
INTERCEPT	0.03594769			
DET313	-0.00016790	0.08641511	32.94	0.0001
DET44	0.00014709	0.51511067	196.36	0.0001

STEP 2 DET44 REPLACED BY DET14D4 R SQUARE = 0.84854721 C(P) = 109.85568361

DF	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
REGRESSION	0.64794437	0.32397218	142.87	0.0001
ERROR	0.11564823	0.00226761		
TOTAL	0.76359259			

R VALUE	STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	0.03822725			
DET313	-0.00016911	0.11824281	52.14	0.0001
DET14D4	0.00016846	0.53325051	235.16	0.0001

STEP 2 DET313 REPLACED BY DET1213 R SQUARE = 0.84856662 C(P) = 109.84170362

DF	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
REGRESSION	0.64795461	0.32397730	142.88	0.0001
ERROR	0.11563799	0.00226741		
TOTAL	0.76359259			

R VALUE	STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	0.03824331			
DET14D4	0.00016374	0.52816913	232.94	0.0001
DET1213	-0.00016492	0.11825305	52.15	0.0001

THE ABOVE MODEL IS THE BEST 2 VARIABLE MODEL FOUND.



STEP 3 DET1213 REPLACED BY DET1413									
C(P) = 82.33267605									
R SQUARE = 0.87687272									
SUM OF SQUARES									
MEAN SQUARE									
PROB>F									
F									
PROB>F									
REGRESSION	3	0.6835175	0.2278393	116.96	0.0001				
ERROR	50	0.09524781	0.00190482						
TOTAL	53	0.76359259							
R VALUE									
TYPE II SS									
PROB>F									
INTERCEPT	0.05533146	0.02039718	10.71	0.0019					
DET1404	-0.0022523	0.17927495	94.48	0.0001					
DET1213	-0.00018618	0.10863485	55.98	0.0001					
STEP 3 DET1213 REPLACED BY DET1413									
C(P) = 82.33267605									
R SQUARE = 0.87687272									
SUM OF SQUARES									
MEAN SQUARE									
PROB>F									
F									
PROB>F									
REGRESSION	3	0.66957351	0.22319117	118.69	0.0001				
ERROR	50	0.09401508	0.00188039						
TOTAL	53	0.76359259							
R VALUE									
TYPE II SS									
PROB>F									
INTERCEPT	0.05365459	0.02405986	12.80	0.0008					
DET1404	-0.00267498	0.18750854	99.72	0.0001					
DET1413	-0.00046725	0.10785660	57.36	0.0001					
STEP 3 DET9 REPLACED BY DET3									
C(P) = 76.23256408									
R SQUARE = 0.88272540									
SUM OF SQUARES									
MEAN SQUARE									
PROB>F									
F									
PROB>F									
REGRESSION	3	0.67404257	0.22468086	125.45	0.0001				
ERROR	50	0.08955002	0.00179100						
TOTAL	53	0.76359259							
R VALUE									
TYPE II SS									
PROB>F									
INTERCEPT	0.04784058	0.02852892	15.93	0.0002					
DET1404	-0.00150428	0.23523590	131.39	0.0001					
DET1413	-0.00024536	0.13661019	76.28	0.0001					
STEP 3 DET1413 REPLACED BY DET913									
C(P) = 74.62811889									
R SQUARE = 0.88426476									
SUM OF SQUARES									
MEAN SQUARE									
PROB>F									
F									
PROB>F									
REGRESSION	3	0.67521802	0.22507267	127.34	0.0001				
ERROR	50	0.08817457	0.00176749						
TOTAL	53	0.76359259							
R VALUE									
TYPE II SS									
PROB>F									

THE ABOVE MODEL IS THE BEST 3 VARIABLE MODEL FOUND.



MAXIMUM R-SQUARE IMPROVEMENT FOR DEPENDENT VARIABLE IS

R SQUARE = 0.9166764 C(P) = 42.85536035

STEP 4 VARIABLE DET14 ENTERED

DF	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
REGRESSION	4	0.17499016	134.75	0.0001
ERROR	49	0.00129861		
TOTAL	53			
B VALUE	STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	0.02808791	0.02474260	19.05	0.0001
DET14	0.00563157	0.06316546	48.64	0.0001
DET13	-0.0022984	0.11581823	89.19	0.0001
DET1404	0.0022984	0.1345652	103.92	0.0001
DET1913	-0.00035545			

THE ABOVE MODEL IS THE BEST 4 VARIABLE MODEL FOUND.

R SQUARE = 0.92512250 C(P) = 36.04305425

STEP 5 VARIABLE CL1 ENTERED

DF	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
REGRESSION	5	0.14128334	118.61	0.0001
ERROR	48	0.00119116		
TOTAL	53			
B VALUE	STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	0.03231166	0.00655607	5.42	0.0242
CL1	0.0021152	0.0221515	18.90	0.0001
DET14	-0.0023088	0.05742464	48.21	0.0001
DET13	-0.0024220	0.11581823	98.81	0.0001
DET1404	0.0021121	0.12705426	106.66	0.0001
DET1913	-0.00029814			

THE ABOVE MODEL IS THE BEST 5 VARIABLE MODEL FOUND.

R SQUARE = 0.92958879 C(P) = 33.38795509

STEP 6 VARIABLE DET12 ENTERED

DF	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
REGRESSION	6	0.11830452	103.42	0.0001
ERROR	47	0.00114395		
TOTAL	53			
B VALUE	STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	0.04025910	0.00900127	7.87	0.0073
CL1	0.01370865	0.01750252	15.30	0.0003
DET14	-0.00173193	0.04752396	85.90	0.0001
DET13	-0.00177085	0.09732786	91.68	0.0001
DET1404	0.00220073	0.1047691	2.98	0.0908
DET1913	-0.0028323			
DET12	-0.00198522	0.00341042		

R SQUARE = 0.94058667 C(P) = 21.92512234

STEP 6 DET13 REPLACED BY DET4

DF	SUM OF SQUARES	MEAN SQUARE	F	PROB>F
REGRESSION	6	0.11970417	124.01	0.0001
ERROR	47	0.00096577		
TOTAL	53			
B VALUE	STD ERROR	TYPE II SS	F	PROB>F
INTERCEPT	0.03669098	0.00711442	7.37	0.0092
CL1	-0.01216649	0.04758996	49.72	0.0001
DET14	-0.01317929	0.01512288	15.70	0.0003
DET1404	-0.00224651	0.1123273	104.96	0.0001
DET1913	-0.0021207	0.126281	116.88	0.0001
DET12	-0.0022659	0.03199160	32.73	0.0001



21:41 MONDAY, MARCH 14, 1983

STATISTICAL ANALYSIS SYSTEM  
MAXIMUM P-SQUARE IMPROVEMENT FOR DEPENDENT VARIABLE TS

R SQUARE = 0.9411155 C(P) = 21.37804987

STEP 6 CLI REPLACED BY D4C1

SUM OF SQUARES		MEAN SQUARE		F	PROB>F
REGRESSION	DF				
ERROR	47	0.71862591	0.11977097	125.19	0.0001
TOTAL	53	0.9411155	0.0095674		
STD ERROR		TYPE II SS		F	PROB>F
INTERCEPT	B VALUE				
INT14	0.02000258	0.00186005	0.05514171	57.63	0.0001
DET14	0.01412107	0.00128277	0.01814018	18.96	0.0001
D4C1	-0.00558563	0.00025577	0.00251522	7.86	0.0073
DET14D4	0.00025100	0.00000000	0.00000000	0.00	0.0001
DET1913	-0.00031369	0.00000000	0.00000000	0.00	0.0001
DET112	-0.00371188	0.00063335	0.03393290	35.47	0.0001

THE ABOVE MODEL IS THE BEST 6 VARIABLE MODEL FOUND.











UNIVARIATE

VARIABLE=DET2

MOMENTS

MEAN 2071.87  
STD DEV 2529.87  
SKEWNESS 0.905361  
KURTOSIS 59.400405  
USS 4222106  
T MEAN=0  
SGN RANK 6.12855  
NUH = 0

QUANTILES(DEF=4)

100% MAX 7375.45  
95% 7375.45  
50% MED 4568.58  
25% Q1 518.65  
0% MIN 171.09  
RANGE 7422.47  
Q3-Q1 4397.49  
MODE -47.02

EXTREMES

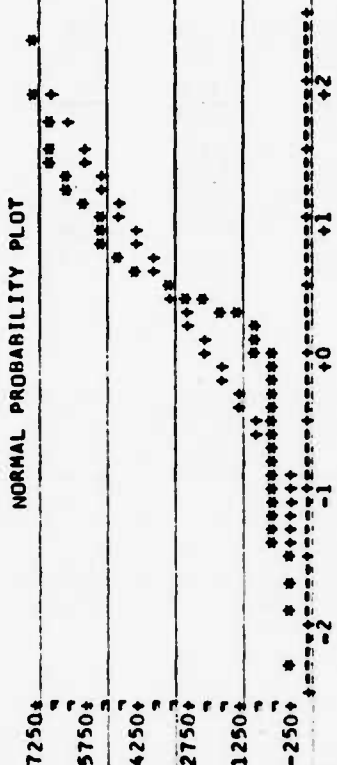
LOWEST -47.02  
-33.09  
-32.68  
-22.31  
-2.01  
HIGHEST 6529.51  
6713.71  
6891.67  
7070.67  
7375.45

MISSING VALUE  
COUNT  
% COUNT/NOBS 1.75

BNXPLOT

STEM LEAF  
7 1 4  
6 5 5 7 9  
5 5 5 9  
5 0 1 3  
4 0 5 8  
3 3 2  
2 2 5 8  
1 7  
0 5 5 5 6 6 8 8  
0 1 1 2 2 2 2 3 3 3 3 4 4  
0 0 0 0 0 0 0 0 0 0  
-0

NORMAL PROBABILITY PLOT



FREQUENCY TABLE

VALUE	COUNT	PERCENTS CELL	CUM PERCENTS	VALUE	COUNT	PERCENTS CELL	CUM PERCENTS	VALUE	COUNT	PERCENTS CELL	CUM PERCENTS
-47.02	1	.008	.008	539.83	1	.008	.016	4743.86	1	.008	.024
-33.09	1	.008	.016	630.04	1	.008	.032	5015.24	1	.008	.040
-32.68	1	.008	.024	738.55	1	.008	.040	5102.02	1	.008	.048
-22.31	1	.008	.032	795.89	1	.008	.048	5229.60	1	.008	.056
-2.01	1	.008	.040	825.29	1	.008	.056	5498.00	1	.008	.064
171.09	1	.008	.048	1170.71	1	.008	.072	5976.93	1	.008	.072
518.65	1	.008	.056	1408.21	1	.008	.080	6235.36	1	.008	.080
171.09	1	.008	.064	2788.24	1	.008	.088	6469.91	1	.008	.088
518.65	1	.008	.072	3175.18	1	.008	.096	6713.71	1	.008	.096
518.65	1	.008	.080	3480.23	1	.008	.104	6891.67	1	.008	.104
518.65	1	.008	.088	4042.76	1	.008	.112	7070.67	1	.008	.112
518.65	1	.008	.096					7375.45	1	.008	.120



## VARIABLE=NET3

## MOMENTS

MEAN 1643.98  
STD DEV 1699.85  
SKEWNESS 0.827589  
CV 3.0271331  
TIMEAN=0  
SGN RANK 7.23725  
NUM = 0

## QUANTILES(DEF=4)

100% MAX 5361.98  
75% Q3 3147.52  
50% MED 1778.67  
25% Q1 288.392  
0% MIN -50.29  
RANGE 5416.27  
Q3-Q1 2886.13  
MODE -50.29

## EXTREMES

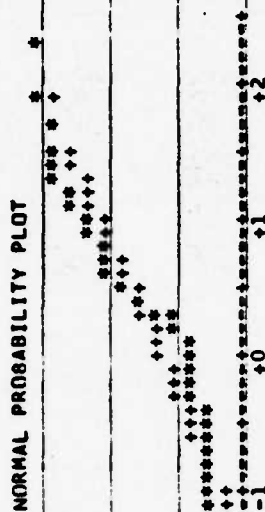
HIGHEST 5361.98  
LOWEST -50.29  
-19.76  
-18.92  
-5.39  
5361.98

MISSING VALUE  
COUNT  
% COUNT/NOHS 1.75

## BOXPLOT

STEM LEAF  
5 14  
4 5678  
3 024  
3 81224  
2 58  
2 244  
1 1113  
0 55666778889  
0 111112333444  
-0 100000

## NORMAL PROBABILITY PLOT



MULTIPLY STEM LEAF BY 10\*\*03

## FREQUENCY TABLE

VALUE	COUNT	PERCENTS	CUM	VALUE	COUNT	PERCENTS	CUM	VALUE	COUNT	PERCENTS	CUM
-50.29	1	1.8	1.8	778.78	1	1.8	51.8	5361.98	1	1.8	100.0
-18.92	1	1.8	3.6	866.79	1	1.8	53.6	4542.10	1	1.8	98.2
-5.39	1	1.8	5.4	927.98	1	1.8	55.4	7178.06	1	1.8	96.4
69.47	1	1.8	7.2	1056.82	1	1.8	57.2	-19.76	1	1.8	94.6
79.75	1	1.8	9.0	1468.56	1	1.8	59.0	-50.29	1	1.8	92.8
86.73	1	1.8	10.8	1778.67	1	1.8	60.8				91.0
137.30	1	1.8	12.6	2198.01	1	1.8	62.6				89.2
167.04	1	1.8	14.4	2397.47	1	1.8	64.4				87.4
260.15	1	1.8	16.2	2501.72	1	1.8	66.2				85.6
				3151.72	1	1.8	68.0				83.8
											82.0
											80.2
											78.4
											76.6
											74.8
											73.0
											71.2
											69.4
											67.6
											65.8
											64.0
											62.2
											60.4
											58.6
											56.8
											55.0
											53.2
											51.4
											49.6
											47.8
											46.0
											44.2
											42.4
											40.6
											38.8
											37.0
											35.2
											33.4
											31.6
											29.8
											28.0
											26.2
											24.4
											22.6
											20.8
											19.0
											17.2
											15.4
											13.6
											11.8
											10.0
											8.2
											6.4
											4.6
											2.8
											1.0



VARIABLE=NET4

# MOMENTS

MEAN 6962.06  
 STD DEV 7131.15  
 SKEWNESS 0.1266249  
 CV 102.429  
 T MEAN=0  
 SGN RANK 7.30588  
 NUM 56

SUM WGT 56  
 SUM VARIANCE 389875  
 SUM KURTOSIS 50853238  
 CSS 2796929201  
 STD MEAN 952.94  
 PROB>T= 0.0001  
 PROB>J= 0.0001

# QUANTILES (DEF=4)

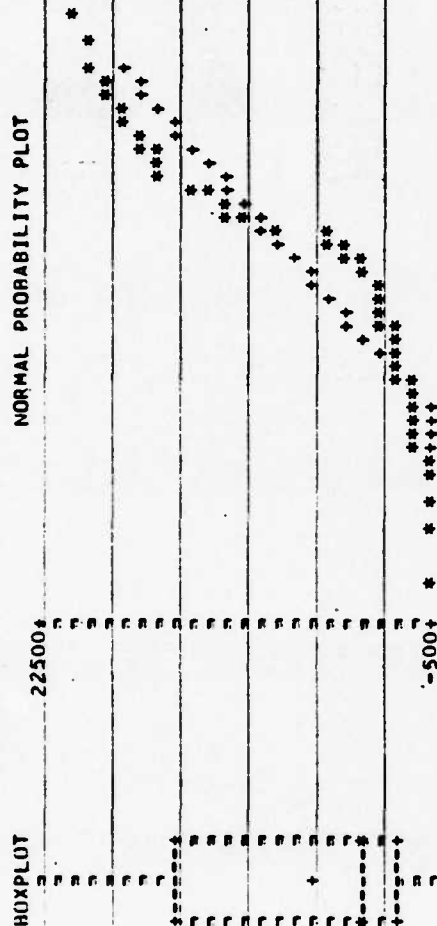
100% MAX 22948.1  
 75% O3 14594.7  
 50% MED 3637.67  
 25% O1 1134.3  
 0% MIN -113.86  
 RANGE 23062  
 O3-O1 13460.4  
 MODE -113.86

# EXTREMES

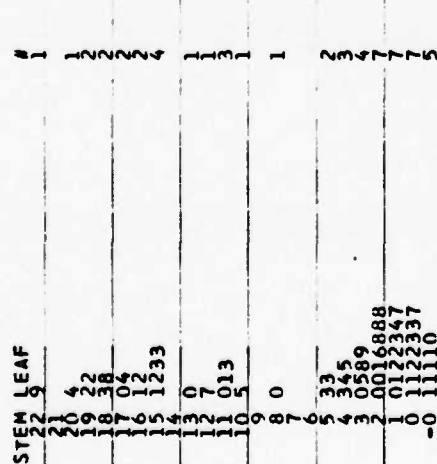
22948.1  
 19395.1  
 18474.8  
 7793.07  
 -109.51  
 -113.86  
 LOWEST  
 113.86  
 109.51  
 7793.07  
 19395.1  
 18474.8  
 22948.1  
 HIGHEST

MISSING VALUE  
 COUNT  
 2 COUNT/NBS 1.75

# NORMAL PROBABILITY PLOT



# HOX PLOT



# FREQUENCY TABLE

VALUE	COUNT	PERCENTS	CUM	VALUE	COUNT	PERCENTS	CUM	VALUE	COUNT	PERCENTS	CUM
-113.86	1	1.8	1.8	3796.25	1	1.8	51.0	15112.0	1	1.8	76.0
-109.51	1	1.8	3.6	3911.13	1	1.8	52.8	15325.4	1	1.8	78.0
-109.51	1	1.8	5.4	4245.34	1	1.8	54.6	15740.8	1	1.8	80.0
-85.04	1	1.8	7.2	5268.31	1	1.8	56.4	16260.1	1	1.8	82.0
-77.93	1	1.8	9.0	8013.0	1	1.8	58.2	17031.4	1	1.8	83.0
-77.93	1	1.8	10.8	10498.1	1	1.8	60.0	17433.5	1	1.8	85.0
-77.93	1	1.8	12.6	11027.2	1	1.8	61.8	18187.0	1	1.8	86.0
-77.93	1	1.8	14.4	11128.7	1	1.8	63.6	19173.7	1	1.8	88.0
-77.93	1	1.8	16.2	11349.2	1	1.8	65.4	19238.8	1	1.8	90.0
-77.93	1	1.8	18.0	11303.2	1	1.8	67.2	20368.1	1	1.8	92.0
-77.93	1	1.8	19.8				69.0				94.0
-77.93	1	1.8	21.6				70.8				96.0
-77.93	1	1.8	23.4				72.6				98.0
-77.93	1	1.8	25.2				74.4				100.0



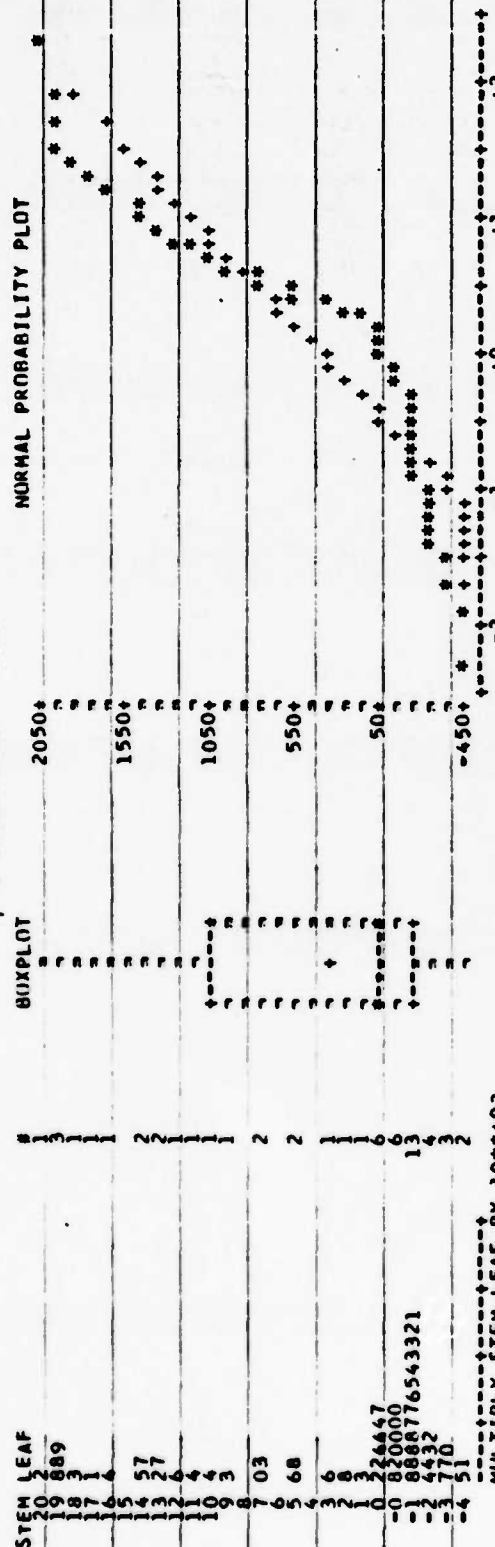








**SINCE**

[illegible]

MULTIPLY STEM.LEAF BY 10\*\*+02

FREQUENCY TABLE									
PERCENTS	CELL	CUM	VALUE	COUNT	PERCENTS	CELL	CUM	VALUE	COUNT
0.06	1	0.06	1	1	0.06	1	0.06	1	1
0.27	2	0.33	2	2	0.33	2	0.33	2	2
0.90	3	1.23	3	3	1.23	3	1.23	3	3
0.30	4	1.53	4	4	1.53	4	1.53	4	4
0.37	5	1.90	5	5	1.90	5	1.90	5	5
0.37	6	2.27	6	6	2.27	6	2.27	6	6
0.50	7	2.77	7	7	2.77	7	2.77	7	7
0.50	8	3.27	8	8	3.27	8	3.27	8	8
0.50	9	3.77	9	9	3.77	9	3.77	9	9
0.50	10	4.27	10	10	4.27	10	4.27	10	10
0.50	11	4.77	11	11	4.77	11	4.77	11	11
0.50	12	5.27	12	12	5.27	12	5.27	12	12
0.50	13	5.77	13	13	5.77	13	5.77	13	13
0.50	14	6.27	14	14	6.27	14	6.27	14	14
0.50	15	6.77	15	15	6.77	15	6.77	15	15
0.50	16	7.27	16	16	7.27	16	7.27	16	16
0.50	17	7.77	17	17	7.77	17	7.77	17	17
0.50	18	8.27	18	18	8.27	18	8.27	18	18
0.50	19	8.77	19	19	8.77	19	8.77	19	19
0.50	20	9.27	20	20	9.27	20	9.27	20	20
0.50	21	9.77	21	21	9.77	21	9.77	21	21
0.50	22	10.27	22	22	10.27	22	10.27	22	22
0.50	23	10.77	23	23	10.77	23	10.77	23	23
0.50	24	11.27	24	24	11.27	24	11.27	24	24
0.50	25	11.77	25	25	11.77	25	11.77	25	25
0.50	26	12.27	26	26	12.27	26	12.27	26	26
0.50	27	12.77	27	27	12.77	27	12.77	27	27
0.50	28	13.27	28	28	13.27	28	13.27	28	28
0.50	29	13.77	29	29	13.77	29	13.77	29	29
0.50	30	14.27	30	30	14.27	30	14.27	30	30
0.50	31	14.77	31	31	14.77	31	14.77	31	31
0.50	32	15.27	32	32	15.27	32	15.27	32	32
0.50	33	15.77	33	33	15.77	33	15.77	33	33
0.50	34	16.27	34	34	16.27	34	16.27	34	34
0.50	35	16.77	35	35	16.77	35	16.77	35	35
0.50	36	17.27	36	36	17.27	36	17.27	36	36
0.50	37	17.77	37	37	17.77	37	17.77	37	37
0.50	38	18.27	38	38	18.27	38	18.27	38	38
0.50	39	18.77	39	39	18.77	39	18.77	39	39
0.50	40	19.27	40	40	19.27	40	19.27	40	40
0.50	41	19.77	41	41	19.77	41	19.77	41	41
0.50	42	20.27	42	42	20.27	42	20.27	42	42



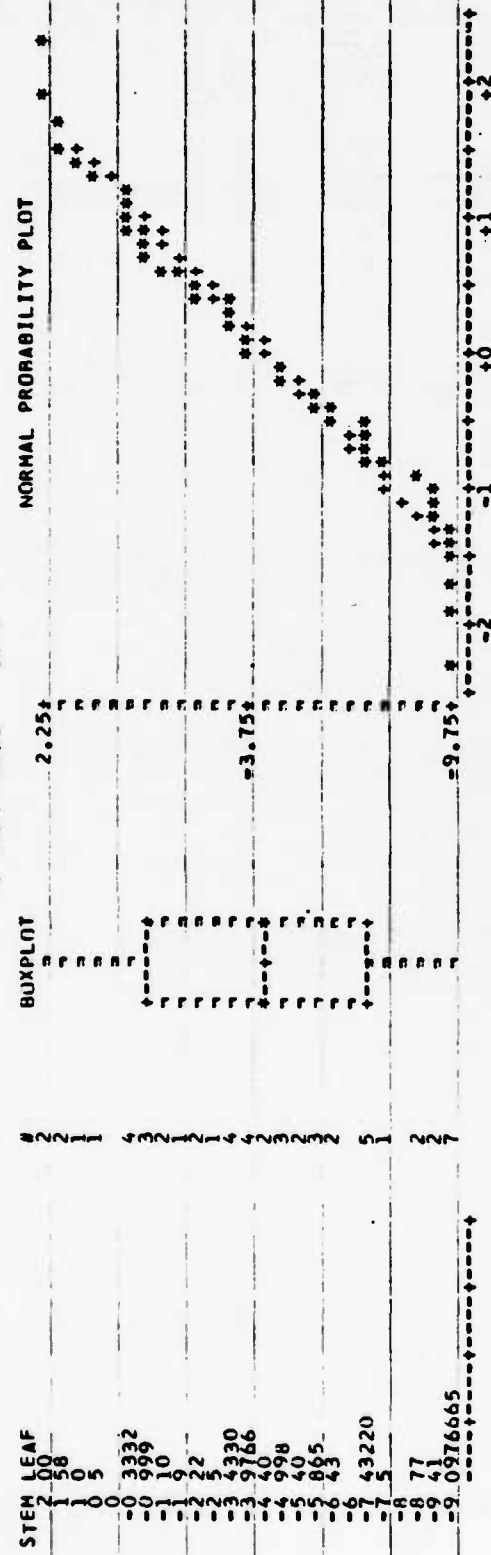
MEAN 56  
 STD DEV 4.36857  
 SKEWNESS 3.59043  
 KURTOSIS 0.466214  
 USS 1.77724  
 CV MEAN 82.1814  
 CV MEAN=0 -9.10315  
 SGN RANK 127  
 NUM 56

SUM WGTs  
 SUM 56  
 VARIANCE 18.912  
 KURTOSIS 0.466214  
 CV MEAN 82.1814  
 PRURBS-S 0.00001

100% MAX 2.05  
 75% Q3 -0.99  
 50% MED -4.18  
 25% Q1 -7.265  
 0% MIN -9.96  
 RANGE 12.01  
 Q3-Q1 6.275  
 MODE -9.65

LOWEST  
 99% 2.05  
 95% 1.815  
 90% 0.652994  
 5% -9.74  
 1% -9.65  
 HIGHEST 2.05

MISSING VALUE  
 COUNT 1  
 % COUNT/NOBS 1.75



FREQUENCY TABLE

VALUE	COUNT	PERCENTS	CUM	VALUE	COUNT	PERCENTS	CUM	VALUE	COUNT	PERCENTS	CUM
-9.96	1	1.8	1.8	-3.95	1	1.8	33.6	-0.87	1	1.8	82.1
-9.91	1	1.8	3.6	-3.73	1	1.8	53.6	-0.31	1	1.8	83.9
-9.71	1	1.8	5.4	-3.65	1	1.8	58.9	-0.28	1	1.8	85.7
-9.65	1	1.8	7.2	-3.45	1	1.8	60.7	-0.25	1	1.8	87.5
-9.50	1	1.8	9.0	-3.35	1	1.8	62.5	1.01	1	1.8	89.3
-9.44	1	1.8	10.8	-3.30	1	1.8	64.3	1.79	1	1.8	91.1
-9.38	1	1.8	12.6	-3.02	1	1.8	66.1	1.79	1	1.8	92.9
-9.15	1	1.8	14.4	-2.42	1	1.8	67.9	2.05	1	1.8	94.7
-8.72	1	1.8	16.2	-2.22	1	1.8	69.7				96.5
-8.66	1	1.8	18.0	-1.94	1	1.8	71.5				98.3
-7.54	1	1.8	19.8	-1.08	1	1.8	73.3				100.0
-7.27	1	1.8	21.6	-0.91	1	1.8	75.1				
-7.25	1	1.8	23.4				76.9				



UNIVARIATE

VARIABLE=WRS

MOMENTS

MEAN 27.8421  
STD DEV 21.1164  
SKEWNESS 0.280604  
CURTOSIS 1.21158  
USS 24970.6  
CV 75.8435  
T-MEAN=0  
SGN RANK 9.9545  
NUM 826.5

QUANTILES(DEF=4)

100% MAX 66  
75% Q3 58  
50% MED 24  
25% Q1 8  
0% MIN 0.167  
RANGE 65.833  
Q3-Q1 40  
MODE 0.167

EXTREMES

LOWEST 66  
0.167  
HIGHEST 66  
0.167  
66  
0.167  
66  
0.167

BOXPLOT

NORMAL PROBABILITY PLOT

67.5

STEM LEAF



MULTIPLY STEM LEAF BY 10\*\*01

FREQUENCY TABLE

VALUE	COUNT	PERCENTS	CELL	CUM	VALUE	COUNT	PERCENTS	CELL	CUM
0.167	6	10.5	10.5	10.5	66	1	1.8	100.0	100.0
4	6	10.5	21.1	21.1	58	1	1.8	100.0	100.0
8	6	10.5	31.6	31.6					



UNIVARIATE									
VARIABLE=FE					QUANTILES(DEF=4)				
MOMENTS					EXTREMES				
MEAN	416.118	SUM	51	100% MAX	998	998	998	998	HIGHEST
STD DEV	323.133	VARIANCE	104415	75% Q3	734	998	998	998	
SKEWNESS	0.07483	KURTOSIS	194415	50% MED	280	998	998	998	
CV	140.5608	CSS	922199	25% Q1	200	998	998	998	
T-MEAN=0	77.6543	STD MEAN	5220759	0% MIN	19	998	998	998	
SGN RANK	9.19643	PROB>T=	45.2477	RANGE	979	998	998	998	
NUM	663	PROB>S=	0.0001	Q3-Q1	534	998	998	998	
	51		0.0001	MODE	698	998	998	998	
MISSING VALUE					NORMAL PROBABILITY PLOT				
# COUNT/NOBS					*** **				
10.53					*****				
BOXPLOT					*****				
1025+					*****				
925+					*****				
825+					*****				
725+					*****				
625+					*****				
525+					*****				
425+					*****				
325+					*****				
225+					*****				
125+					*****				
25+					*****				
MULTIPLY STEM-LEAF BY 10**02					*****				
FREQUENCY TABLE					*****				
VALUE	203	PERCENTS	27.5	CELL	203	PERCENTS	27.5	CELL	203
COUNT	203	CUM	203	CUM	203	CUM	203	CUM	203
VALUE	209	PERCENTS	27.5	CELL	209	PERCENTS	27.5	CELL	209
COUNT	209	CUM	209	CUM	209	CUM	209	CUM	209
VALUE	225	PERCENTS	27.5	CELL	225	PERCENTS	27.5	CELL	225
COUNT	225	CUM	225	CUM	225	CUM	225	CUM	225
VALUE	226	PERCENTS	27.5	CELL	226	PERCENTS	27.5	CELL	226
COUNT	226	CUM	226	CUM	226	CUM	226	CUM	226
VALUE	243	PERCENTS	27.5	CELL	243	PERCENTS	27.5	CELL	243
COUNT	243	CUM	243	CUM	243	CUM	243	CUM	243
VALUE	248	PERCENTS	27.5	CELL	248	PERCENTS	27.5	CELL	248
COUNT	248	CUM	248	CUM	248	CUM	248	CUM	248
VALUE	259	PERCENTS	27.5	CELL	259	PERCENTS	27.5	CELL	259
COUNT	259	CUM	259	CUM	259	CUM	259	CUM	259
VALUE	270	PERCENTS	27.5	CELL	270	PERCENTS	27.5	CELL	270
COUNT	270	CUM	270	CUM	270	CUM	270	CUM	270



UNIVARIATE

VARIABLE=VIS

MOMENTS

MEAN 507.286  
STD DEV 848.608  
SKEWNESS 3.6546  
CURTOSIS 471.76123  
CV 167.284  
TIMEAN=0  
SGN RANK 4.1845  
NUM 612.5

QUANTILES(DEF=4)

100% MAX 4900  
75% Q3 352.5  
50% MED 205  
25% Q1 127.5  
0% MIN 80  
RANGE 4820  
Q3-Q1 225  
MODE 110

EXTREMES

LOWEST 4900  
HIGHEST 4900  
80  
85  
92  
94  
100

MISSING VALUE  
COUNT 8  
% COUNT/NOBS 14.04

NORMAL PROBABILITY PLOT

# BOXPLOT 4750+

STEM LFAP

4 9  
3 9  
2 9  
1 679  
0 5679  
MULTIPLY STEM.LEAF BY 10\*\*+03

FREQUENCY TABLE

VALUE	COUNT	PERCENTS	CELL	CUM	VALUE	COUNT	PERCENTS	CELL	CUM	VALUE	COUNT	PERCENTS	CELL	CUM
80	1	2.0	1	1	140	1	2.0	1	1	570	1	2.0	1	1
85	1	2.0	1	2	150	1	2.0	2	2	605	1	2.0	2	2
92	1	2.0	1	3	155	1	2.0	3	3	905	1	2.0	3	3
100	1	2.0	1	4	160	1	2.0	4	4	1100	1	2.0	4	4
110	1	2.0	1	5	163	1	2.0	5	5	1160	1	2.0	5	5
112	1	2.0	1	6	167	1	2.0	6	6	1600	1	2.0	6	6
120	1	2.0	1	7	180	1	2.0	7	7	1700	1	2.0	7	7
125	1	2.0	1	8	198	1	2.0	8	8	1860	1	2.0	8	8
130	1	2.0	1	9	200	1	2.0	9	9	2890	1	2.0	9	9
134	1	2.0	1	10	213	1	2.0	10	10	4900	1	2.0	10	10



## UNIVARIATE

[illegible]



## UNIVARIATE

## VARIABLES

## MOMENTS

## QUANTILES(DEF=4)

## EXTREMES

	MEAN	STD DEV	SKEWNESS	KURTOSIS	CSS	STD MEAN	PROB>T=	PROB>S=	57	332	68.9772	12.5405	3862.73	1.10006	0.0001	0.0001	0.0001	0.0001	100% MAX	75% O3	50% MED	25% Q1	0% MIN	48	7	3.2	1.2	0.4	99%	95%	90%	10%	1%	22.9999	16	16	16	32	48
NUM	5.82456	8.30525	3.18926	5.19648	142.59	5.29478	826.57	826.57	57	332	68.9772	12.5405	3862.73	1.10006	0.0001	0.0001	0.0001	0.0001	100% MAX	75% O3	50% MED	25% Q1	0% MIN	48	7	3.2	1.2	0.4	99%	95%	90%	10%	1%	22.9999	16	16	16	32	48

## BOXPLOT

## NORMAL PROBABILITY PLOT

## STEM LEAF

	48	44	42	40	38	36	34	32	30	28	26	24	22	20	18	16	14	12	10	8	6	4	2	0
NUM	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

## FREQUENCY TABLE

VALUE	COUNT	PERCENTS	CELL	CUM	VALUE	COUNT	PERCENTS	CELL	CUM	VALUE	COUNT	PERCENTS	CELL	CUM
0.4	10	17.5	17.5	17.5	8.8	8	13.3	33.3	33.3	16.8	1	1.8	1.8	94.7
0.8	3	5.0	22.5	22.5	10.5	5	8.3	41.7	41.7	32	48	80.0	51.8	96.5
1.2	4	6.7	29.2	29.2	3.3	3	5.0	46.7	46.7	12	16	18.2	60.0	98.2
1.6	1	1.7	30.9	30.9	3.3	3	5.0	51.8	51.8	16	1	1.8	61.8	99.0
2.4	3	5.0	35.9	35.9	7.2	1	1.8	53.6	53.6	16.8	1	1.8	55.4	100.0







15:50 TUESDAY, MAY 29, 1984

SOUTHWEST RESEARCH-ASTH III D

OBS	CL2	DET1	DET2	DET3	DET4	FD1	FD2	FD13	ZN1	HRS	FE	VIS	TAN	TS	COB	GC
1	55	7.8	32.68	39	109.6	0.30	0.30	39.57	-0.28	0.167	19	92	3.23	0.4	25.0	...
2	55	19.1	32.1	5.50	130.7	0.30	0.30	36.2	-0.25	0.000	17	94	3.33	0.7	28.4	...
3	24	12.0	31.5	70.1	130.7	0.30	0.30	36.2	-0.25	0.000	17	94	3.33	0.7	28.4	...
4	25	12.0	31.5	310.1	130.7	0.30	0.30	36.2	-0.25	0.000	17	94	3.33	0.7	28.4	...
5	25	12.0	31.5	310.1	130.7	0.30	0.30	36.2	-0.25	0.000	17	94	3.33	0.7	28.4	...
6	30	12.0	31.5	310.1	130.7	0.30	0.30	36.2	-0.25	0.000	17	94	3.33	0.7	28.4	...
7	30	12.0	31.5	310.1	130.7	0.30	0.30	36.2	-0.25	0.000	17	94	3.33	0.7	28.4	...
8	30	12.0	31.5	310.1	130.7	0.30	0.30	36.2	-0.25	0.000	17	94	3.33	0.7	28.4	...
9	30	12.0	31.5	310.1	130.7	0.30	0.30	36.2	-0.25	0.000	17	94	3.33	0.7	28.4	...
10	30	12.0	31.5	310.1	130.7	0.30	0.30	36.2	-0.25	0.000	17	94	3.33	0.7	28.4	...
11	30	12.0	31.5	310.1	130.7	0.30	0.30	36.2	-0.25	0.000	17	94	3.33	0.7	28.4	...
12	30	12.0	31.5	310.1	130.7	0.30	0.30	36.2	-0.25	0.000	17	94	3.33	0.7	28.4	...
13	30	12.0	31.5	310.1	130.7	0.30	0.30	36.2	-0.25	0.000	17	94	3.33	0.7	28.4	...
14	30	12.0	31.5	310.1	130.7	0.30	0.30	36.2	-0.25	0.000	17	94	3.33	0.7	28.4	...
15	30	12.0	31.5	310.1	130.7	0.30	0.30	36.2	-0.25	0.000	17	94	3.33	0.7	28.4	...
16	30	12.0	31.5	310.1	130.7	0.30	0.30	36.2	-0.25	0.000	17	94	3.33	0.7	28.4	...
17	30	12.0	31.5	310.1	130.7	0.30	0.30	36.2	-0.25	0.000	17	94	3.33	0.7	28.4	...
18	30	12.0	31.5	310.1	130.7	0.30	0.30	36.2	-0.25	0.000	17	94	3.33	0.7	28.4	...
19	30	12.0	31.5	310.1	130.7	0.30	0.30	36.2	-0.25	0.000	17	94	3.33	0.7	28.4	...
20	30	12.0	31.5	310.1	130.7	0.30	0.30	36.2	-0.25	0.000	17	94	3.33	0.7	28.4	...
21	30	12.0	31.5	310.1	130.7	0.30	0.30	36.2	-0.25	0.000	17	94	3.33	0.7	28.4	...
22	30	12.0	31.5	310.1	130.7	0.30	0.30	36.2	-0.25	0.000	17	94	3.33	0.7	28.4	...
23	30	12.0	31.5	310.1	130.7	0.30	0.30	36.2	-0.25	0.000	17	94	3.33	0.7	28.4	...
24	30	12.0	31.5	310.1	130.7	0.30	0.30	36.2	-0.25	0.000	17	94	3.33	0.7	28.4	...
25	30	12.0	31.5	310.1	130.7	0.30	0.30	36.2	-0.25	0.000	17	94	3.33	0.7	28.4	...
26	30	12.0	31.5	310.1	130.7	0.30	0.30	36.2	-0.25	0.000	17	94	3.33	0.7	28.4	...
27	30	12.0	31.5	310.1	130.7	0.30	0.30	36.2	-0.25	0.000	17	94	3.33	0.7	28.4	...







DET4	DET3	TAN	DET2	FU1	FDI3	CL2	IS	DET1	VIS	MRS	FE	ZNI
1.00000	0.29605	0.98270	0.98130	0.95233	0.92795	0.92689	0.87351	0.83614	0.75547	0.71933	0.58005	0.30427
COR	GC											
-0.10079	0.00000											
FD1												
FD1	FDI3	DET2	DET4	DET3	CL2	DET1	IAN	IS	VIS	MRS	ZNI	FE
1.00000	0.96813	0.96493	0.95233	0.94874	0.93620	0.93425	0.93419	0.81974	0.80513	0.59918	0.52506	0.49923
COR	GC											
-0.09550	0.00000											
FD2												
FD2	DET1	ZNI	FDI3	CL2	FDI2	DET2	DET3	DET4	TAN	VIS	FE	MRS
1.00000	-0.57494	-0.56641	-0.44925	-0.44193	-0.43923	-0.38978	-0.37639	-0.36339	-0.34240	-0.24867	-0.19389	-0.17087
COR	GC											
-0.06245	0.00000											
FDI3												
FDI3	FDI	DET2	DET4	IAN	DET3	CL2	DET1	VIS	IS	MRS	ZNI	FE
1.00000	0.96813	0.96363	0.92795	0.92657	0.92598	0.90505	0.89951	0.84397	0.82828	0.58380	0.51206	0.35839
COR	GC											
-0.18125	0.00000											
ZNI												
ZNI	DET1	FD2	CL2	FDI	FDI3	DET2	DET3	DET4	VIS	IAN	MRS	FE
1.00000	0.64915	-0.56641	0.53506	0.52506	0.51206	0.37952	0.32489	0.30426	0.28079	0.26551	-0.25054	0.14908
COR	GC											
0.05550	0.00000											
MRS												
MRS	TAN	DET4	DET3	IS	DET2	FDI	FDI3	VIS	CL2	DET1	ZNI	FE
1.00000	0.76915	0.71953	0.69515	0.69121	0.68980	0.59918	0.58380	0.53488	0.48272	0.45827	-0.25054	-0.17087
COR	GC											
-0.00031	0.00000											
FE												
FE	CL2	DET3	DET4	DET2	FDI	IAN	DET1	IS	FDI3	MRS	VIS	FE
1.00000	0.67847	0.60829	0.58005	0.53773	0.51580	0.49806	0.43200	0.40481	0.35839	0.24750	0.20641	0.19170
COR	GC											
0.08573	0.00000											
VIS												
VIS	TS	FDI3	DET2	FDI	DET3	CL2	IAN	DET4	DET1	MRS	ZNI	FE
1.00000	0.85034	0.84397	0.81521	0.80575	0.78979	0.77983	0.76238	0.75547	0.64633	0.53488	0.28079	-0.24965
COR	GC											
-0.24965	0.00000											



CORRELATION COEFFICIENTS / NUMBER OF OBSERVATIONS

0.20641-0.00000 GC  
25

TAN	DET4	OET3	OET2	FDI1	FDI3	CL2	TS	DETI	HRS	VIS	FE	INI
1.00000	0.98270	0.98019	0.97090	0.93419	0.92657	0.90002	0.89796	0.79864	0.76915	0.76238	-0.34240	0.26551
27	27	27	27	27	27	27	27	27	27	25	27	27

CUB GC  
 -0.07736 0.00000  
 27 0

[illegible]

0.14908-0.00000 GC  
INZ 27 0

[illegible]

HRS	G/C
-0.00031	0.00000
27	0

[illegible]

$\frac{0.0000}{0} \times \frac{0.0000}{0} = 0.0000$



15150 TUESDAY, MAY 29, 1984

SOUTHWEST RESEARCH-ASTM III D

ORS	CL2	DET1	DET2	DET3	DET4	FD1	F02	FDI3	ZN1	HRS	FE	VIS	TAN	TS	COB	GC
1	0.69	20.5	27.07	-19.76	-7.6	-0.52	0.38	0.67	-0.31	0.167	43	198	1.42	0.4	57.0	...
2	0.69	50.5	57.07	-69.71	-0.52	-0.52	1.378	22.51	-2.02	4.000	203	213	1.42	0.4	57.0	...
3	0.69	50.5	57.07	26.09	-0.52	-0.52	1.378	22.51	-2.02	16.000	619	318	1.42	0.4	57.0	...
4	0.69	50.5	57.07	38.09	-0.52	-0.52	1.378	22.51	-2.02	32.000	827	...	1.42	0.4	57.0	...
5	0.69	50.5	57.07	48.09	-0.52	-0.52	1.378	22.51	-2.02	48.000	978	...	1.42	0.4	57.0	...
6	0.69	50.5	57.07	48.09	-0.52	-0.52	1.378	22.51	-2.02	48.000	978	...	1.42	0.4	57.0	...
7	0.69	50.5	57.07	48.09	-0.52	-0.52	1.378	22.51	-2.02	48.000	978	...	1.42	0.4	57.0	...
8	0.69	50.5	57.07	48.09	-0.52	-0.52	1.378	22.51	-2.02	48.000	978	...	1.42	0.4	57.0	...
9	0.69	50.5	57.07	48.09	-0.52	-0.52	1.378	22.51	-2.02	48.000	978	...	1.42	0.4	57.0	...
10	0.69	50.5	57.07	48.09	-0.52	-0.52	1.378	22.51	-2.02	48.000	978	...	1.42	0.4	57.0	...
11	0.69	50.5	57.07	48.09	-0.52	-0.52	1.378	22.51	-2.02	48.000	978	...	1.42	0.4	57.0	...
12	0.69	50.5	57.07	48.09	-0.52	-0.52	1.378	22.51	-2.02	48.000	978	...	1.42	0.4	57.0	...
13	0.69	50.5	57.07	48.09	-0.52	-0.52	1.378	22.51	-2.02	48.000	978	...	1.42	0.4	57.0	...
14	0.69	50.5	57.07	48.09	-0.52	-0.52	1.378	22.51	-2.02	48.000	978	...	1.42	0.4	57.0	...
15	0.69	50.5	57.07	48.09	-0.52	-0.52	1.378	22.51	-2.02	48.000	978	...	1.42	0.4	57.0	...
16	0.69	50.5	57.07	48.09	-0.52	-0.52	1.378	22.51	-2.02	48.000	978	...	1.42	0.4	57.0	...
17	0.69	50.5	57.07	48.09	-0.52	-0.52	1.378	22.51	-2.02	48.000	978	...	1.42	0.4	57.0	...
18	0.69	50.5	57.07	48.09	-0.52	-0.52	1.378	22.51	-2.02	48.000	978	...	1.42	0.4	57.0	...
19	0.69	50.5	57.07	48.09	-0.52	-0.52	1.378	22.51	-2.02	48.000	978	...	1.42	0.4	57.0	...
20	0.69	50.5	57.07	48.09	-0.52	-0.52	1.378	22.51	-2.02	48.000	978	...	1.42	0.4	57.0	...
21	0.69	50.5	57.07	48.09	-0.52	-0.52	1.378	22.51	-2.02	48.000	978	...	1.42	0.4	57.0	...
22	0.69	50.5	57.07	48.09	-0.52	-0.52	1.378	22.51	-2.02	48.000	978	...	1.42	0.4	57.0	...
23	0.69	50.5	57.07	48.09	-0.52	-0.52	1.378	22.51	-2.02	48.000	978	...	1.42	0.4	57.0	...
24	0.69	50.5	57.07	48.09	-0.52	-0.52	1.378	22.51	-2.02	48.000	978	...	1.42	0.4	57.0	...
25	0.69	50.5	57.07	48.09	-0.52	-0.52	1.378	22.51	-2.02	48.000	978	...	1.42	0.4	57.0	...
26	0.69	50.5	57.07	48.09	-0.52	-0.52	1.378	22.51	-2.02	48.000	978	...	1.42	0.4	57.0	...
27	0.69	50.5	57.07	48.09	-0.52	-0.52	1.378	22.51	-2.02	48.000	978	...	1.42	0.4	57.0	...
28	0.69	50.5	57.07	48.09	-0.52	-0.52	1.378	22.51	-2.02	48.000	978	...	1.42	0.4	57.0	...
29	0.69	50.5	57.07	48.09	-0.52	-0.52	1.378	22.51	-2.02	48.000	978	...	1.42	0.4	57.0	...
30	0.69	50.5	57.07	48.09	-0.52	-0.52	1.378	22.51	-2.02	48.000	978	...	1.42	0.4	57.0	...



CL2	30	2.22500000	1.84097004	66.7500000	0.24000000	5576.72000000
DET1	29	945.35965517	2349.00849635	27415.4300000	-2031.69000000	7375.45000000
DET2	29	2417.62965517	2675.13975946	70111.2600000	-47.02000000	5069.30000000
DET3	29	1884.86310345	1777.65927871	54661.0300000	-19.76000000	19173.68000000
DET4	29	7660.90034483	7224.42592814	222166.1100000	-113.86000000	14.46000000
FU1	29	3.03482759	5.84923659	88.0100000	-3.12000000	0
FU2	30	1.57033333	3.75424861	47.1100000	0	16.44000000
FU13	29	486.41103448	821.72621007	14105.9200000	-374.90000000	2020.67000000
INI	29	-3.51172414	3.67657262	-101.8400000	-9.96000000	2.05000000
HRS	30	29.28336667	21.77519687	878.5010000	0.16700000	66.00000000
FE	24	495.37500000	348.44184999	11889.0000000	20.00000000	998.00000000
VIS	24	525.50000000	678.88015207	12612.0000000	80.00000000	2890.00000000
TAN	30	9.54000000	6.24754241	286.2000000	1.42000000	19.46000000
TS	30	7.24000000	10.58839964	217.2000000	0.40000000	48.00000000
COR	30	17.70000000	12.38505774	531.0000000	2.00000000	57.00000000

CORRELATION COEFFICIENTS / NUMBER OF OBSERVATIONS

CL2	CL2	DET2	DET3	DET4	DET1	TS	TAN	CL2	DET1	HRS	FE	INI	COR
1.00000	0.93779	0.92837	0.91899	0.90913	0.82783	0.82006	0.79044	0.77068	0.68760	0.60633	-0.45578	-0.45578	30
-0.18557	0.00000	GC											
DET1	DET1	DET2	DET3	DET4	TAN	CL2	DET1	HRS	FE	INI	COR		
1.00000	0.97174	0.95410	0.85592	0.84249	0.79251	0.71721	0.54166	0.54085	0.52657	0.50362	-0.38146	-0.38146	29
-0.34167	0.00000	GC											
DET2	DET2	DET3	DET4	TAN	CL2	DET1	HRS	FE	INI	COR			
1.00000	0.98798	0.98173	0.97116	0.96216	0.93799	0.90052	0.85294	0.80527	0.74033	0.64663	0.49991	-0.42238	29
-0.25284	0.00000	GC											
DET3	DET3	DET4	TAN	CL2	DET1	HRS	FE	INI	COR				
1.00000	0.99505	0.98503	0.97834	0.95263	0.92837	0.87650	0.85592	0.82473	0.78761	0.62380	-0.43492	0.40596	29
-0.21759	0.00000	GC											

DET3	DET3	DET4	TAN	CL2	DET1	HRS	FE	INI	COR
1.00000	0.99505	0.98503	0.97834	0.95263	0.92837	0.87650	0.85592	0.82473	0.78761
-0.21759	0.00000	GC							

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FD1	FD2	FD3	FD4	FD5	FD6	FD7	FD8	FD9	FD10	FD11	FD12	FD13	FD14	FD15	FD16	FD17	FD18	FD19	FD20	FD21	FD22	FD23	FD24	FD25	FD26	FD27	FD28	FD29	FD30	FD31	FD32	FD33	FD34	FD35	FD36	FD37	FD38	FD39	FD40	FD41	FD42	FD43	FD44	FD45	FD46	FD47	FD48	FD49	FD50	FD51	FD52	FD53	FD54	FD55	FD56	FD57	FD58	FD59	FD60	FD61	FD62	FD63	FD64	FD65	FD66	FD67	FD68	FD69	FD70	FD71	FD72	FD73	FD74	FD75	FD76	FD77	FD78	FD79	FD80	FD81	FD82	FD83	FD84	FD85	FD86	FD87	FD88	FD89	FD90	FD91	FD92	FD93	FD94	FD95	FD96	FD97	FD98	FD99	FD100	FD101	FD102	FD103	FD104	FD105	FD106	FD107	FD108	FD109	FD110	FD111	FD112	FD113	FD114	FD115	FD116	FD117	FD118	FD119	FD120	FD121	FD122	FD123	FD124	FD125	FD126	FD127	FD128	FD129	FD130	FD131	FD132	FD133	FD134	FD135	FD136	FD137	FD138	FD139	FD140	FD141	FD142	FD143	FD144	FD145	FD146	FD147	FD148	FD149	FD150	FD151	FD152	FD153	FD154	FD155	FD156	FD157	FD158	FD159	FD160	FD161	FD162	FD163	FD164	FD165	FD166	FD167	FD168	FD169	FD170	FD171	FD172	FD173	FD174	FD175	FD176	FD177	FD178	FD179	FD180	FD181	FD182	FD183	FD184	FD185	FD186	FD187	FD188	FD189	FD190	FD191	FD192	FD193	FD194	FD195	FD196	FD197	FD198	FD199	FD200	FD201	FD202	FD203	FD204	FD205	FD206	FD207	FD208	FD209	FD210	FD211	FD212	FD213	FD214	FD215	FD216	FD217	FD218	FD219	FD220	FD221	FD222	FD223	FD224	FD225	FD226	FD227	FD228	FD229	FD230	FD231	FD232	FD233	FD234	FD235	FD236	FD237	FD238	FD239	FD240	FD241	FD242	FD243	FD244	FD245	FD246	FD247	FD248	FD249	FD250	FD251	FD252	FD253	FD254	FD255	FD256	FD257	FD258	FD259	FD260	FD261	FD262	FD263	FD264	FD265	FD266	FD267	FD268	FD269	FD270	FD271	FD272	FD273	FD274	FD275	FD276	FD277	FD278	FD279	FD280	FD281	FD282	FD283	FD284	FD285	FD286	FD287	FD288	FD289	FD290	FD291	FD292	FD293	FD294	FD295	FD296	FD297	FD298	FD299	FD300	FD301	FD302	FD303	FD304	FD305	FD306	FD307	FD308	FD309	FD310	FD311	FD312	FD313	FD314	FD315	FD316	FD317	FD318	FD319	FD320	FD321	FD322	FD323	FD324	FD325	FD326	FD327	FD328	FD329	FD330	FD331	FD332	FD333	FD334	FD335	FD336	FD337	FD338	FD339	FD340	FD341	FD342	FD343	FD344	FD345	FD346	FD347	FD348	FD349	FD350	FD351	FD352	FD353	FD354	FD355	FD356	FD357	FD358	FD359	FD360	FD361	FD362	FD363	FD364	FD365	FD366	FD367	FD368	FD369	FD370	FD371	FD372	FD373	FD374	FD375	FD376	FD377	FD378	FD379	FD380	FD381	FD382	FD383	FD384	FD385	FD386	FD387	FD388	FD389	FD390	FD391	FD392	FD393	FD394	FD395	FD396	FD397	FD398	FD399	FD400	FD401	FD402	FD403	FD404	FD405	FD406	FD407	FD408	FD409	FD410	FD411	FD412	FD413	FD414	FD415	FD416	FD417	FD418	FD419	FD420	FD421	FD422	FD423	FD424	FD425	FD426	FD427	FD428	FD429	FD430	FD431	FD432	FD433	FD434	FD435	FD436	FD437	FD438	FD439	FD440	FD441	FD442	FD443	FD444	FD445	FD446	FD447	FD448	FD449	FD450	FD451	FD452	FD453	FD454	FD455	FD456	FD457	FD458	FD459	FD460	FD461	FD462	FD463	FD464	FD465	FD466</
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